ICF-4920/5100

2823

SERVICE MANUAL

US Model

ICF-4920

AEP Model

UK Model

E Model

ICF-5100

- Refer to ICF-4900/4910 Service Manual previously issued for the information except for schematic and mounting diagrams of ICF-4920/5100.

  (ICF-4920 is based on ICF-4910.
  ICF-5100 is based on ICF-4900.)

  + 2821

- Refer to ICF-4900/4910 Supplement No. 1 for schematic and mounting diagrams of ICF-4920/5100.
- Parts on next page differ from those in ICF-4900/4910.

MICROFILM

FM/MW/SW 9BAND RECEIVER

SONY®

2823 TR

ICF-4920/5100

- Following parts differ from those in ICF-4900/4910.

GENERAL SECTION

No.	Part No.	Description
1	3-891-813-11	STRAP, HAND
8	3-893-902-11	BUTTON (L), SELECTION
9	3-893-903-11	BUTTON (S), SELECTION
11	3-893-907-11	DRUM, INDICATE
15	3-893-912-11	SCALE (B), DIAL
18	*3-893-975-01	(4920)...LABEL, MODEL NUMBER
	*3-893-980-01	(5100)...LABEL, MODEL NUMBER
20	3-893-920-21	DIAL (A), SCALE
39	X-3893-911-1	(5100:AEP).....CABINET (FRONT) ASSY
	X-3893-912-1	(5100:G-AEP,UK,E)...CABINET (FRONT) ASSY
	X-3893-913-1	(4920).....CABINET (FRONT) ASSY

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
55	3-893-972-01	(4920)...INDIVIDUAL CARTON
	3-893-977-01	(5100)...INDIVIDUAL CARTON
56	3-893-940-01	(5100:E).....GUIDE, SHORT WAVE
	3-893-940-11	(5100:AEP,UK)...GUIDE, SHORT WAVE
62	3-764-464-01	(5100:G-AEP)...INSTRUCTION
65	*3-893-984-01	SHEET, INSULATING

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
504	A-3660-525-A	(EXCEPT FOR G-AEP)...MOUNTED PCB, MAIN			
	A-3660-555-A	(5100:G-AEP).....MOUNTED PCB, MAIN			
C1	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C2	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C3	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C5	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C7	1-163-086-00	CERAMIC CHIP 3PF	0.25PF	50V	
C9	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C10	1-163-059-00	CERAMIC CHIP 0.01MF	10%	50V	
C11	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C15	1-163-125-00	CERAMIC CHIP 220PF	10%	50V	
C18	1-163-111-00	CERAMIC CHIP 56PF	5%	50V	
C22	1-163-111-00	CERAMIC CHIP 56PF	5%	50V	
C32	1-163-090-00	CERAMIC CHIP 7PF	0.25PF	50V	
C37	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C38	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C39	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C43	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C53	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C56	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C59	1-163-084-00	CERAMIC CHIP 1.5PF	0.25PF	50V	
C61	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	
C66	1-163-085-00	(5100:G-AEP) ...CERAMIC CHIP	2PF	0.25PF	50V
C101	1-163-081-00	CERAMIC CHIP 0.22MF		25V	
C102	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V	
C103	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V	
C104	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V	
C105	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V	
C106	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V	
C107	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V	
R3	1-216-043-00	METAL CHIP	560	5%	1/10W
R4	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R8	1-216-041-00	METAL CHIP	470	5%	1/10W
R9	1-216-041-00	METAL CHIP	470	5%	1/10W
R11	1-216-075-00	METAL CHIP	12K	5%	1/10W
R12	1-216-025-00	METAL CHIP	100	5%	1/10W
R14	1-216-073-00	METAL CHIP	10K	5%	1/10W
R15	1-216-045-00	METAL CHIP	680	5%	1/10W
R16	1-216-198-00	METAL CHIP	1K	5%	1/8W
R17	1-216-083-00	METAL CHIP	27K	5%	1/10W
R18	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R19	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R20	1-216-049-00	METAL CHIP	1K	5%	1/10W
R21	1-216-091-00	METAL CHIP	56K	5%	1/10W
R22	1-216-041-00	METAL CHIP	470	5%	1/10W
R23	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R25	1-216-049-00	METAL CHIP	1K	5%	1/10W
R26	1-216-049-00	METAL CHIP	1K	5%	1/10W
R27	1-216-009-00	METAL CHIP	22	5%	1/10W
R29	1-216-029-00	METAL CHIP	150	5%	1/10W
R36	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R37	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R40	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R41	1-216-049-00	METAL CHIP	1K	5%	1/10W
R42	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R48	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R101	1-216-296-00	METAL CHIP	0	5%	1/8W
R102	1-216-296-00	METAL CHIP	0	5%	1/8W
R103	1-216-168-00	METAL CHIP	56	5%	1/8W
R104	1-216-295-00	METAL CHIP	0	5%	1/10W
R105	1-216-242-00	METAL CHIP	68K	5%	1/8W
R106	1-216-081-00	METAL CHIP	22K	5%	1/10W
R107	1-216-192-00	METAL CHIP	560	5%	1/8W
R108	1-216-192-00	METAL CHIP	560	5%	1/8W
R109	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R110	1-216-093-00	METAL CHIP	68K	5%	1/10W
R111	1-216-097-00	METAL CHIP	100K	5%	1/10W
R112	1-216-295-00	METAL CHIP	0	5%	1/10W
R113	1-216-097-00	METAL CHIP	100K	5%	1/10W
R114	1-216-295-00	METAL CHIP	0	5%	1/10W
R115	1-216-097-00	METAL CHIP	100K	5%	1/10W
R116	1-216-097-00	METAL CHIP	100K	5%	1/10W
R117	1-216-296-00	METAL CHIP	0	5%	1/8W
R118	1-216-296-00	METAL CHIP	0	5%	1/8W
R119	1-216-296-00	METAL CHIP	0	5%	1/8W
R120	1-216-097-00	METAL CHIP	100K	5%	1/10W
R121	1-216-097-00	METAL CHIP	100K	5%	1/10W
R122	1-216-296-00	METAL CHIP	0	5%	1/8W
R123	1-216-296-00	METAL CHIP	0	5%	1/8W
R124	1-216-295-00	METAL CHIP	0	5%	1/10W

Sony Corporation
Audio Group

9-952-837-11

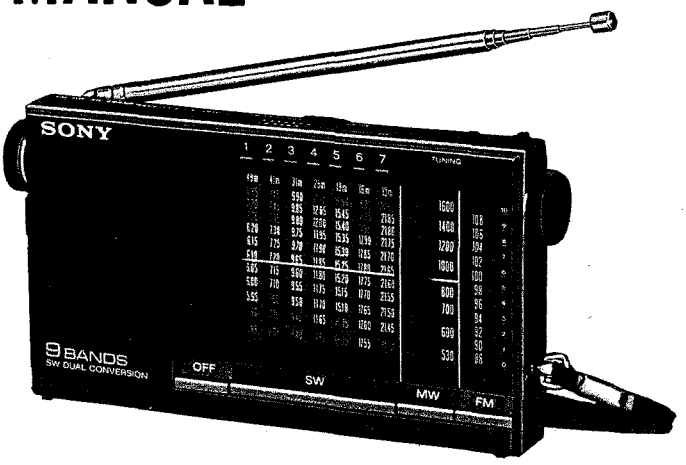
English
87G0494-1
Printed in Japan

© 1987. 7

2821

ICF-4900/4910

SERVICE MANUAL



ICF-4900
AEP Model
E Model
UK Model

ICF-4910
US Model
Canadian Model

SPECIFICATIONS

Frequency range	FM 87.6 – 108 MHz SW_1 5.85 – 6.35 MHz (49 m) SW_2 6.95 – 7.45 MHz (41 m) SW_3 9.4 – 9.9 MHz (31 m) SW_4 11.6 – 12.1 MHz (25 m) SW_5 15.0 – 15.5 MHz (19 m) SW_6 17.55 – 18.05 MHz (16 m) SW_7 21.4 – 21.9 MHz (13 m) MW 530 – 1,605 kHz
Antennas	FM/SW: Telescopic antenna MW: Built-in ferrite bar antenna
Speaker	Approx. 5 cm (3 inches) dia.
Power output	100 mW (at 10% harmonic distortion) at dc operation
Output	Earphone jack (minijack)
Power requirements	3 V dc two size AA batteries (IEC designation R6) DC IN 3 V jack accepts: optional Sony AC-37 ac power adaptor for use on 220 V ac, 60 Hz . . . (ICF-4900; AEP model) optional Sony AC-38 ac power adaptor for use on 110–120 V, 220–240 V ac, 50/60 Hz . . . (ICF-4900; E model) optional Sony AC-39 ac power adaptor for use on optional Sony AC-39 ac power adaptor for use on 120 V ac, 60 Hz . . . (ICF-4910) optional Sony DCC-70 car battery cord for use with 12 V car battery
Battery life	Approx. 22 hours with Sony SUM-3 (NS) New Super batteries or Eveready No. 1215 Heavy Duty batteries
Dimensions	Approx. 144 × 76 × 24.5 mm (w/h/d) ($5\frac{3}{4} \times 3 \times 31/32$ inches) incl. projecting parts and controls
Weight	Approx. 245 g (8.6 oz) incl. batteries

FM/MW/SW 9 BAND RECEIVER

SONY®

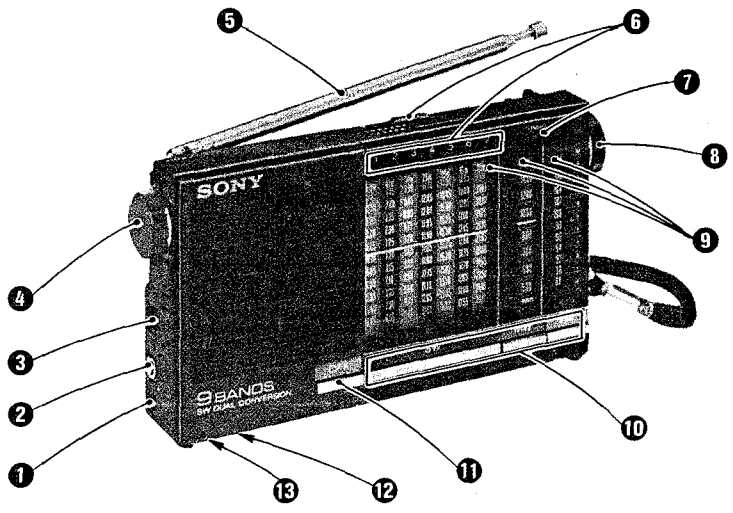
MICROFILM

2821 TR

FEATURES

- Handy FM/MW/SW1-7 9 band receiver with high sensitivity and high selectivity.
- Band spread system enables you to easily tune in SW stations.
- Dual conversion circuit effectively reduces interference from other SW stations.

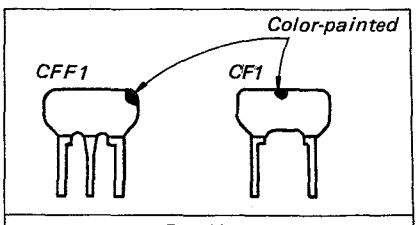
LOCATION AND FUNCTION OF CONTROLS



❶ DC IN 3 V (external power input) jack
❷ Ⓟ Earphone jack
❸ TONE control
❹ VOLUME control
❺ Telescopic antenna
❻ SW band selector and indicators
❼ TUNING indicator
❽ TUNING knob
❾ Dial scales
❿ Band select buttons and indicators
⓫ OFF button
⓬ SAFETY switch (bottom)
⓭ Battery compartment (rear)

Note on Ceramic Filter Replacement

FM IF ceramic filters (CF1, CFF1) are color-painted on their bodies. The color of CF1 and CFF1 should be the same, respectively. CF1 and CFF1 are supplied in pairs. These must be replaced in pairs when used in this set.



Part No.
1-567-097-61

Replacing chip components

All chip components should be connected and disconnected, using a tapered soldering iron [temperature of the iron tip: less than 280°C (536°F)], a pair of tweezers and braided wire.

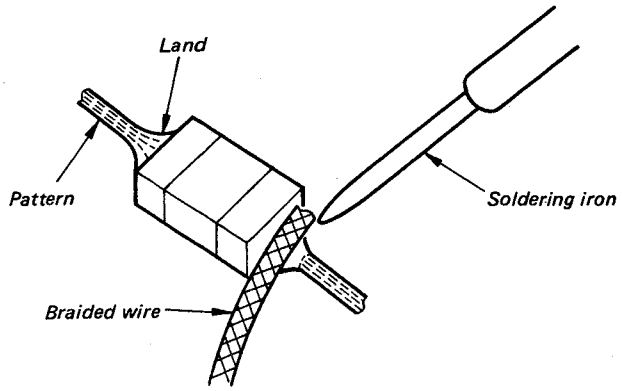
Precautions for replacement

1. **Do not disconnect the chip component forcefully. Otherwise, the pattern may peel off.**
2. **Never re-use a disconnected chip component. Dispose of all old chip components.**
3. **To protect the chip component, heating time for attaching the component should be within 3 seconds.**

○ Removing chip components

(1) Removing solder at electrode

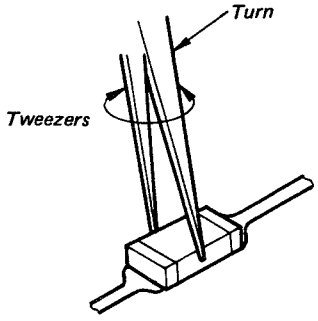
Remove the solder at the electrode, using a thin braided wire. Do not remove the solder of the part (chip component) attached adjacent to the electrode.



(2) Disconnecting chip components

Turn the tweezers with the soldering iron alternately applied to both electrodes, and the chip component will be disconnected. Take careful precautions while disconnecting, because if the chip component is forcefully removed the land may peel off.

Never re-use a disconnected chip component.



(3) Smoothing the soldered surface

After disconnecting the chip component, remove the solder by using a braided wire to smooth the land surface.

○ Connecting chip components

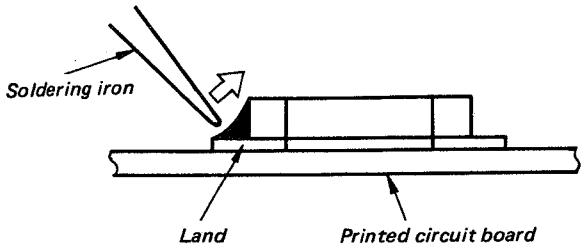
The value of chip components is not displayed on the main body. Take due precautions to avoid mixing new chip components with other ones.

(1) Applying solder to land on one side

Apply a thin layer of solder to the land on one side where the chip component is to be connected. Too much solder may cause bridging.

(2) Speedy soldering

Hold the chip component at the desired position, using tweezers, and apply the soldering iron in the arrow-marked direction. To protect the chip component, heating time should be within 3 seconds.



(3) Speedy soldering of electrode on the other side

Solder the electrode on the other side in the same way as in (2) above.

MELF (Metal Electodes Face-Bonding) Components (AEP, UK, E Model)

Warning

If MELF components are forcibly removed from the printed circuit board with pincers or pliers, the circuit board pattern is likely to peel away. Always remove MELF components according to the procedure described on the next page.

MELF components are soldered directly to the surface of the printed circuit board.

MELF resistors and capacitors have the same dimensions and are distinguished by their background colors: light brown for resistors, and pink or light green for capacitors.

The MELF resistor color coding is the same as for conventional resistors, and MELF capacitor color coding is the same as for tube-type ceramic capacitors.

Components larger than resistors and without a color code are cross conductors, which are used instead of jumper wires.

1. Structure

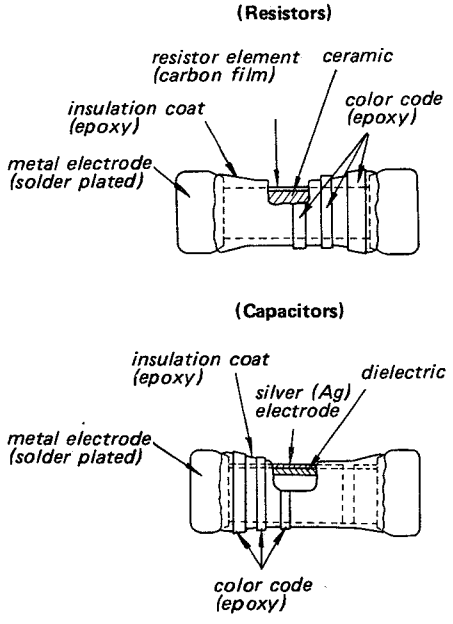
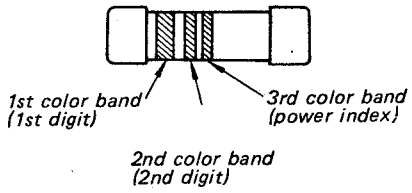
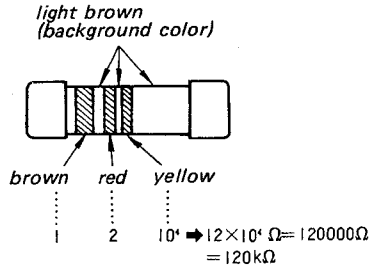


Fig. 1

2. Color Code Reading



(Example of Resistor)



(Example of Capacitor)

background color { pink .....25V voltage resistance
light green ....50V voltage resistance

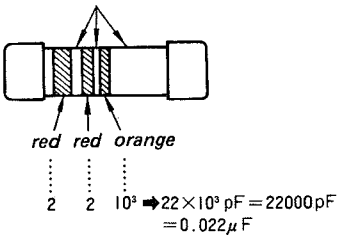


Fig. 2

3. How to Remove MELF Components

Use a soldering iron of at least 40W with an iron tip 4 mm in diameter and file the tip down to the angle shown in the diagram.

1. Bring the flat surface of the soldering iron in equal contact with both soldered ends of the component.
2. The solder should melt in about 4 seconds. (The solder will melt more readily if a small amount of solder is attached to the iron tip and the iron tip is placed against the component.)
3. Once the solder has melted, tap the component aside with the tip of the soldering iron, and remove it from the board.

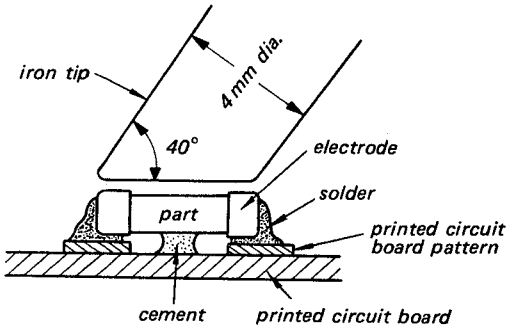


Fig. 3

4. Connecting MELF components

The value of MELF components is not displayed on the main body. Take due precautions to avoid mixing new MELF components with other ones.

1. Applying solder to land on one side

Apply a thin layer of solder to the land on one side where the MELF component is to be connected. Too much solder may cause bridging.

Fig. 4

2. Speedy soldering

Hold the MELF component at the desired position, using tweezers, and apply the soldering iron in the arrow-marked direction. To protect the MELF component, heating time should be within 3 seconds.

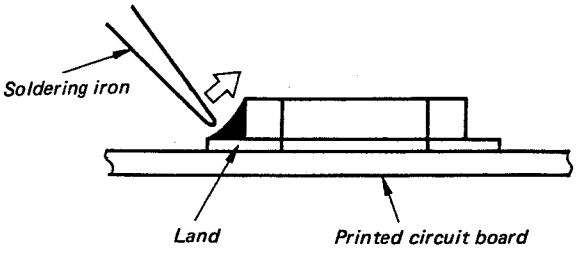


Fig. 5

3. Speedy soldering of electrode on the other side

Solder the electrode on the other side in the same way as in 2. above.

Note: In this model, MELF components are supplied for following parts.

1Ω	1-249-001-00
3.3pF	1-162-327-00
5.6pF	1-162-330-00
6.8pF	1-162-331-00

Use lead type resistors or 3216 type chip components in place of the mounted MELF components.

Lead type resistors may be mounted with leads cut short (see Fig. 6).

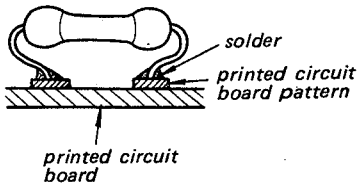
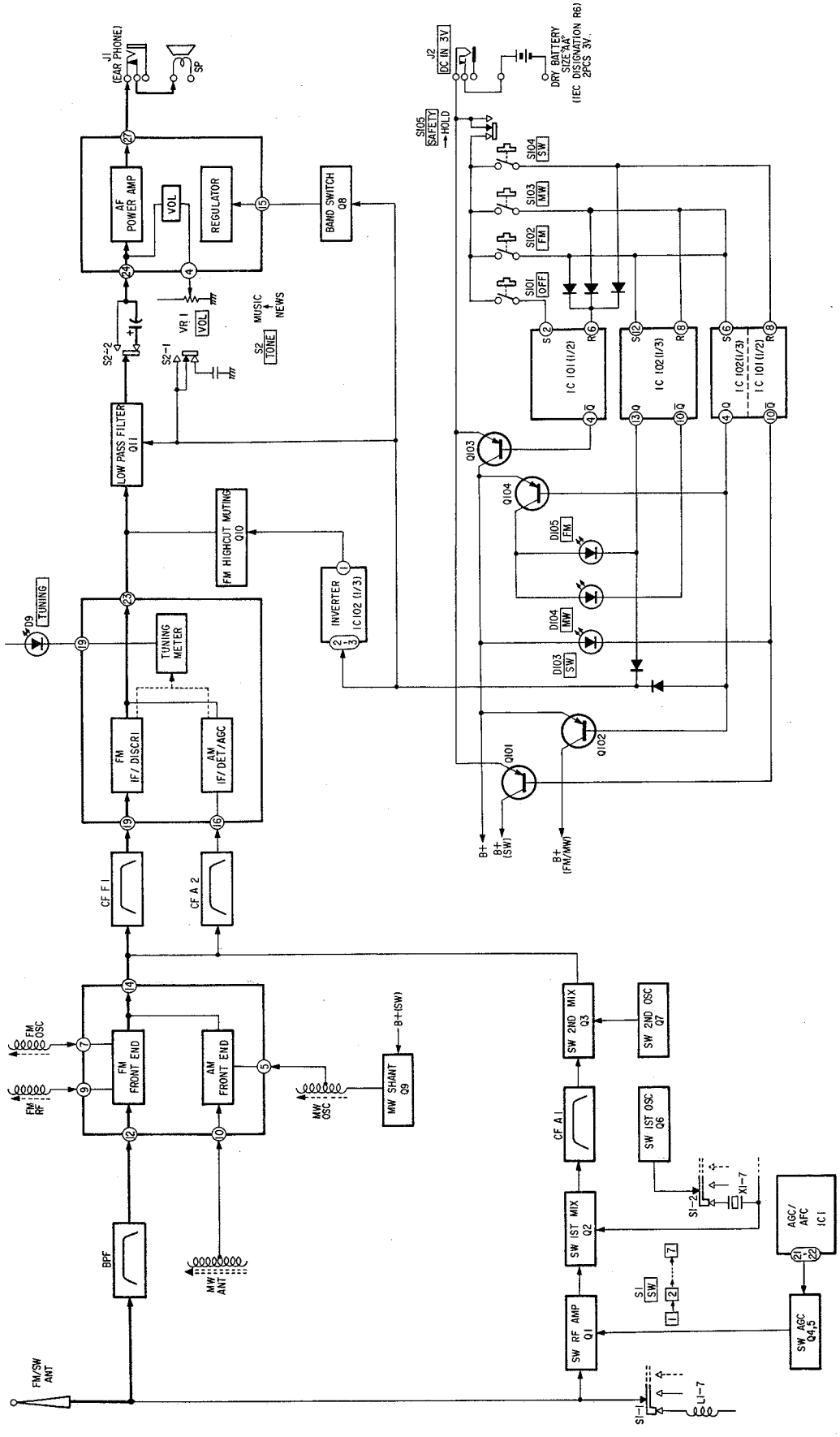


Fig. 6

See page 3 for mounting of chip components.

SECTION 1
OUTLINE

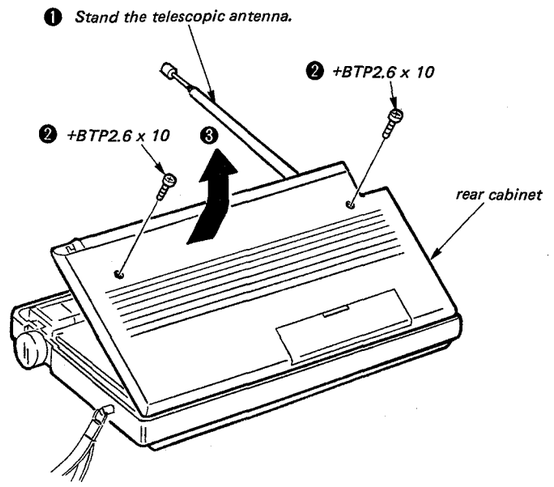
1-1. BLOCK DIAGRAM



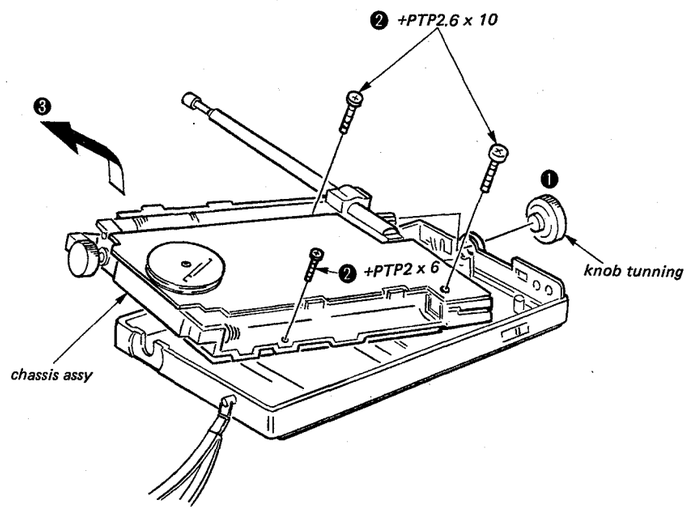
SECTION 2
DISASSEMBLY

- Follow the disassembly procedure in the numerical order given.

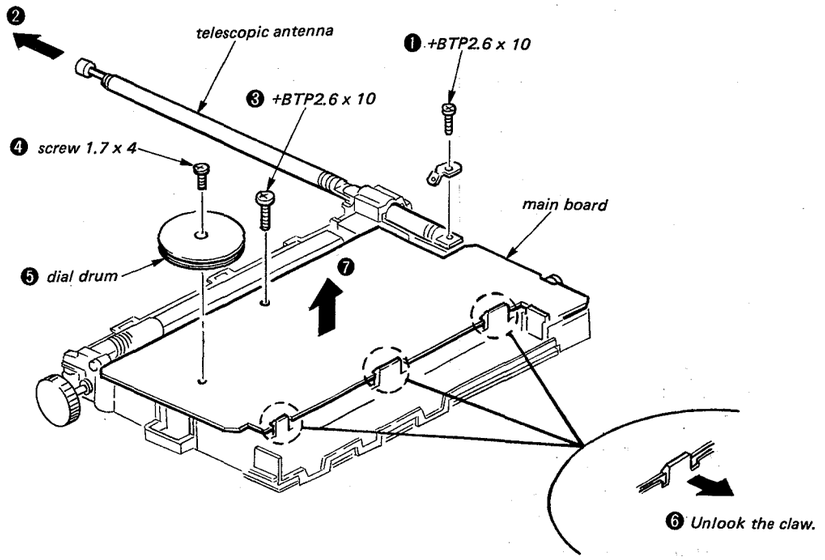
REAR CABINET



CHASSIS ASSY

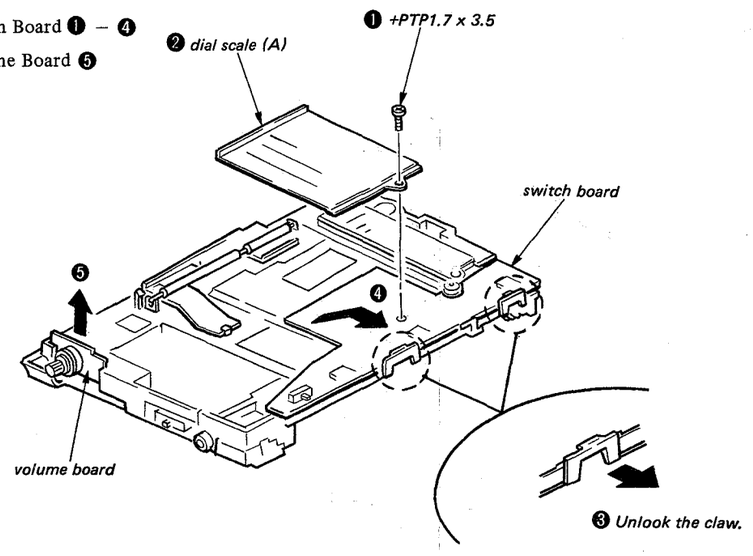


MAIN BOARD/TELESCOPIC ANTENNA



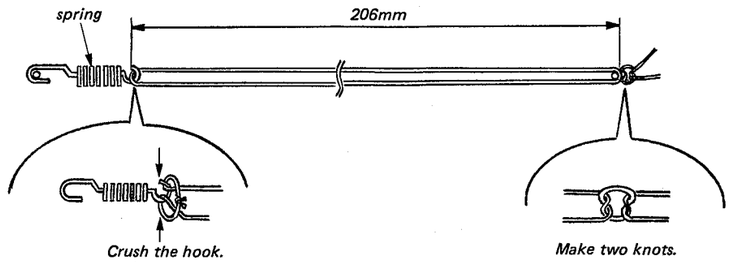
SWITCH BOARD/VOLUME BOARD

Switch Board ❶ – ❹
Volume Board ❺

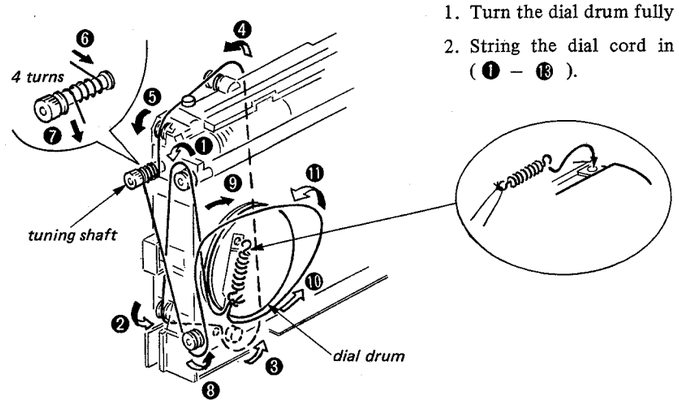


DIAL CORD STRINGING

1. Preparation

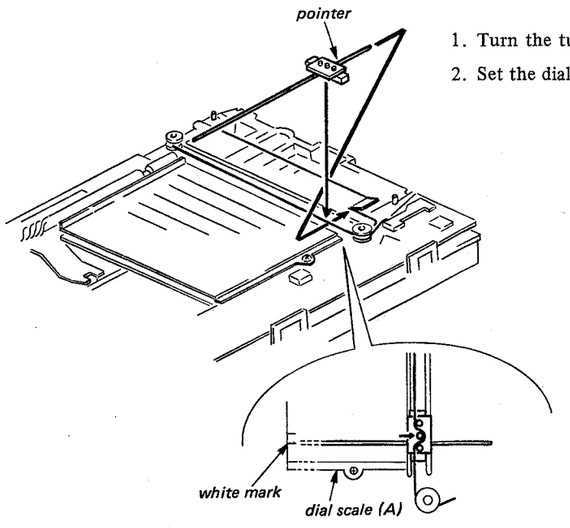


2. Stringing



1. Turn the dial drum fully clockwise.
2. String the dial cord in the numerical order (❶ – ⓭).

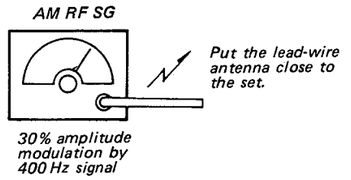
3. Pointer Installation

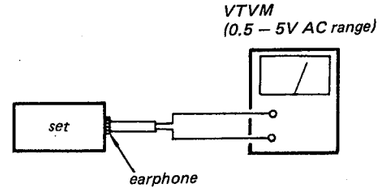


1. Turn the tuning knob fully counterclockwise.
2. Set the dial pointer as illustrated.

SECTION 3
ADJUSTMENTS

3-1. MW SECTION

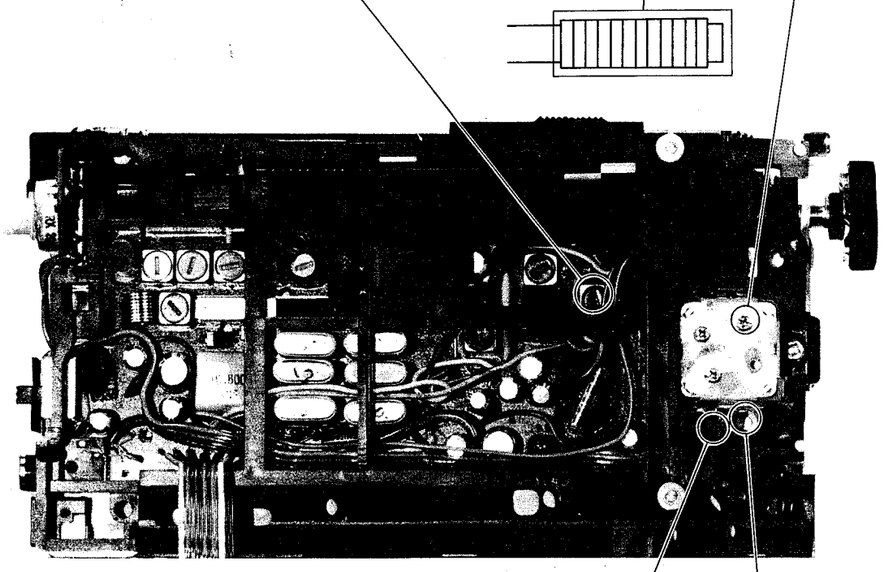




- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

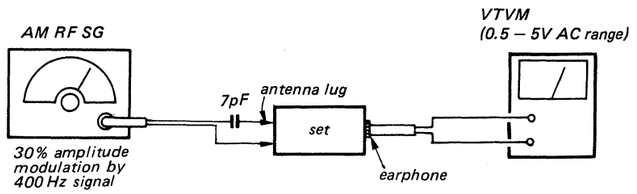
MW IF ALIGNMENT
Adjust for a maximum reading on VTVM.
455kHz
T3

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
620kHz	1400kHz
L12	CT2



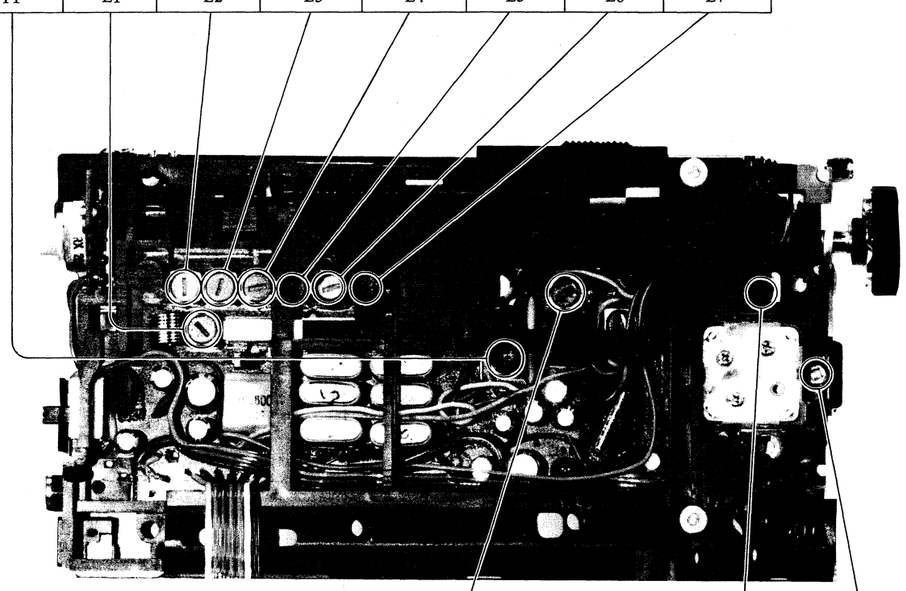
L15	CT5
520kHz	1650kHz
Adjust for a maximum reading on VTVM.	
MW FREQUENCY COVERAGE ADJUSTMENT	

3-2. SW SECTION



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

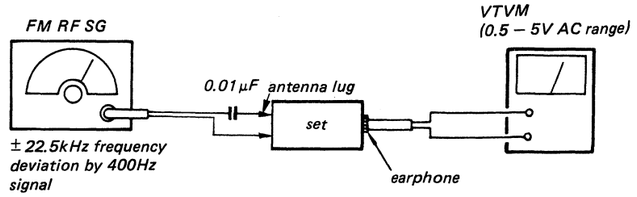
SW1-7 TRACKING ADJUSTMENT							
Adjust for a maximum reading on VTVM.							
6.1MHz		7.2MHz	9.65MHz	11.85MHz	15.25MHz	17.8MHz	21.65MHz
T1	L1	L2	L3	L4	L5	L6	L7



T2
455kHz
Adjust for a maximum reading on VTVM.
SW IF ALIGNMENT

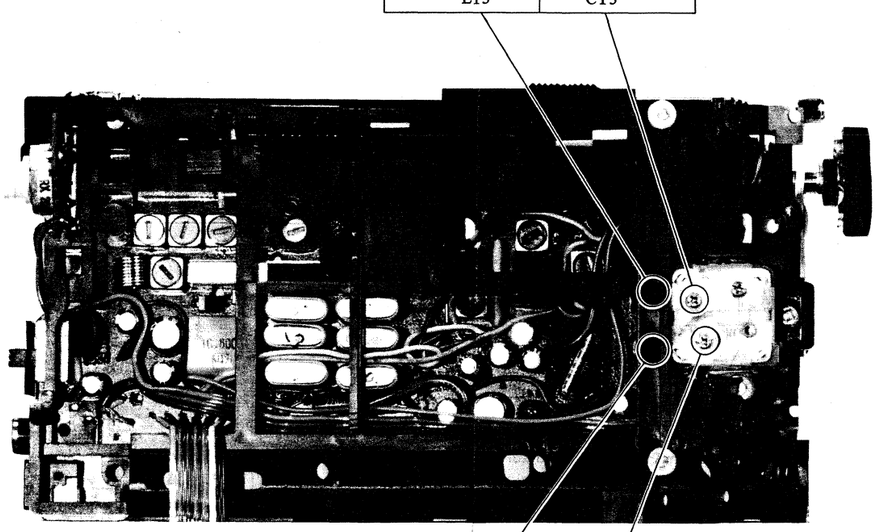
T4	CT1
10.875MHz	11.435MHz
Adjust for a maximum reading on VTVM.	
SW FREQUENCY COVERAGE ADJUSTMENT	

3-3. FM SECTION

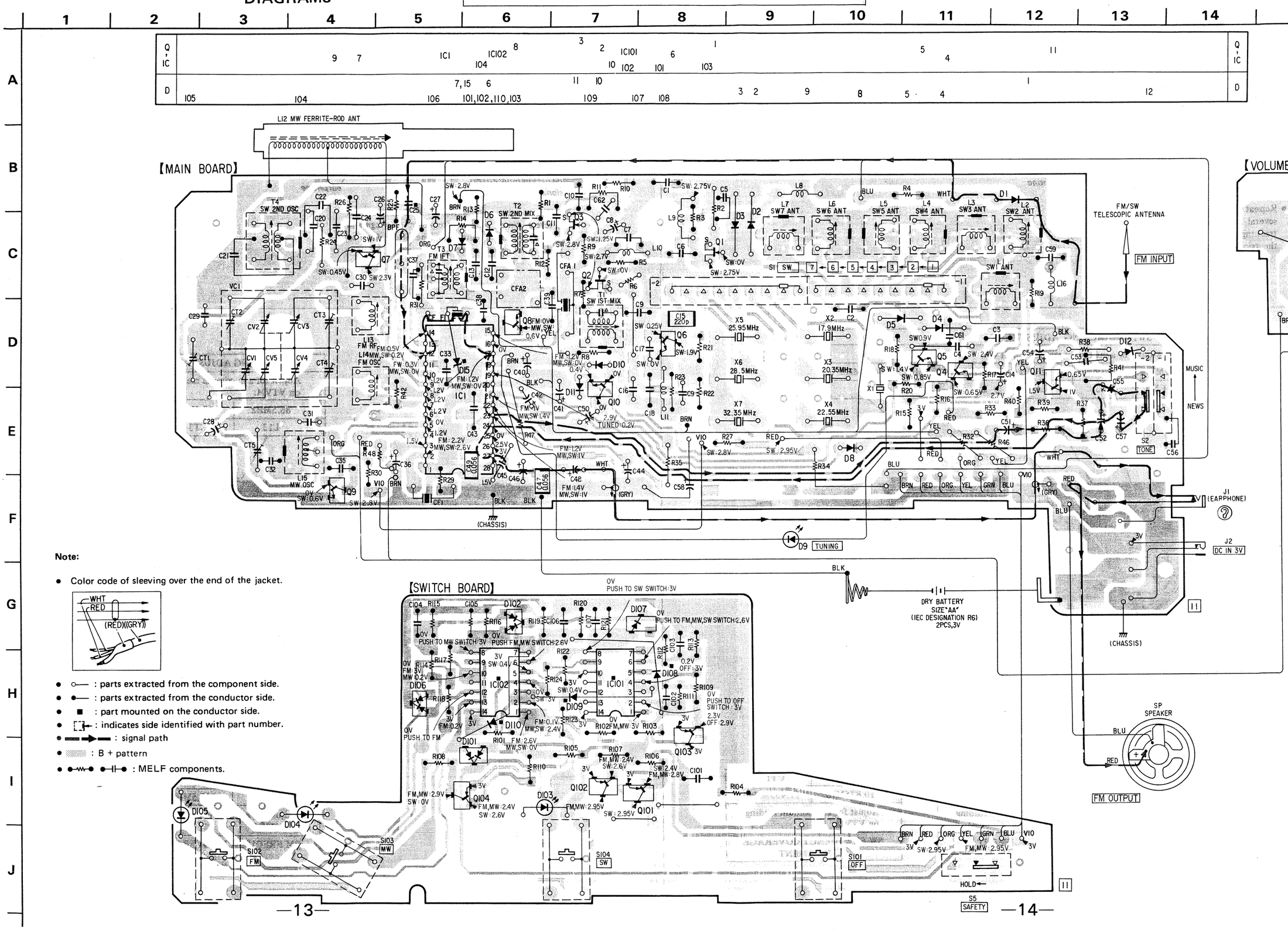


- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
86.5MHz	109.5MHz
L13	CT3



L14	CT4
86.5MHz	109.5MHz
Adjust for a maximum reading on VTVM.	
FM FREQUENCY COVERAGE ADJUSTMENT	

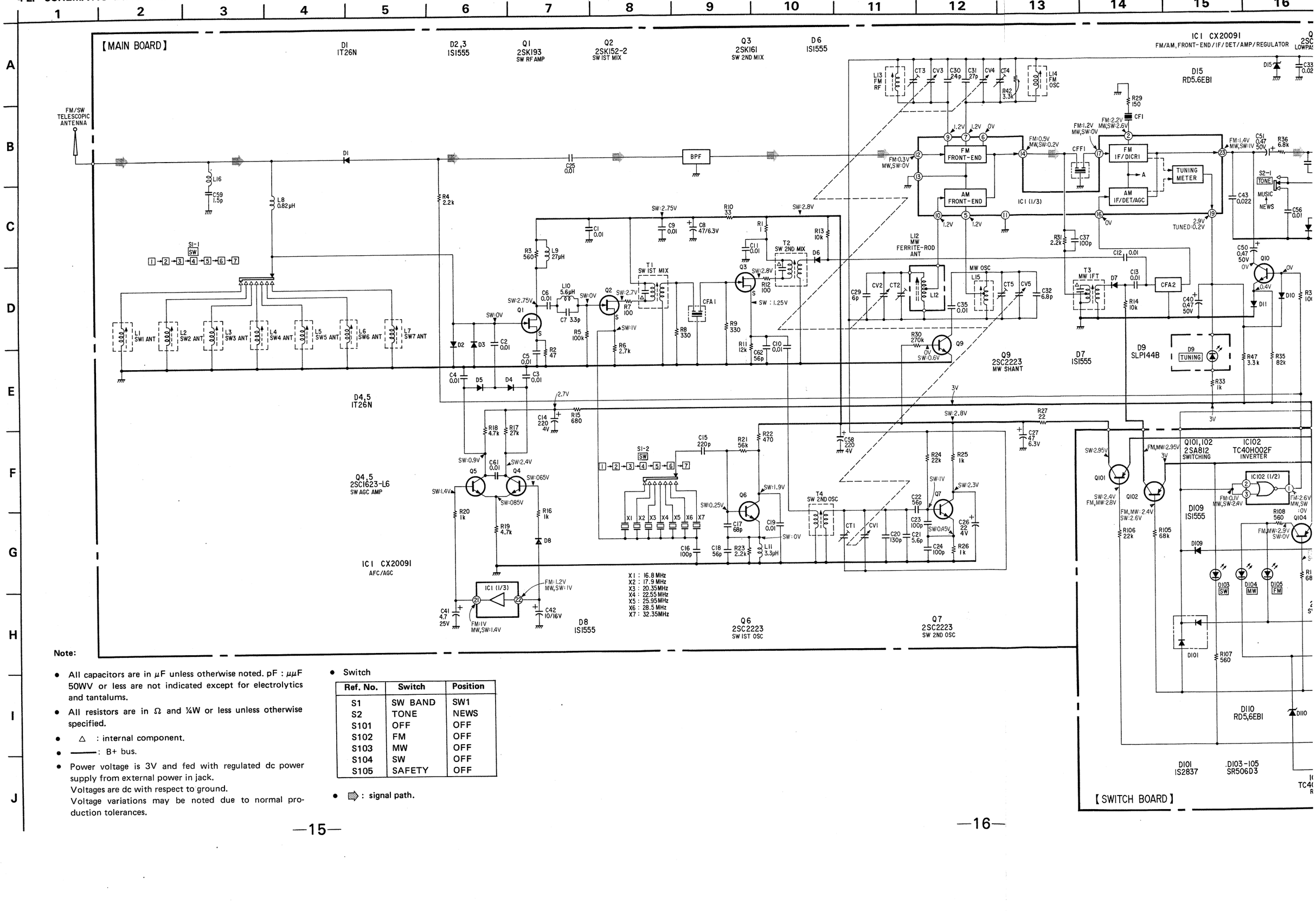


Note:

- Color code of sleeving over the end of the jacket.

- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- [ ]— : indicates side identified with part number.
- ▬▶▬ : signal path
- ▒ : B + pattern
- ●–w–● ●–|(–● : MELF components.

4-2. SCHEMATIC DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ——— : B+ bus.
- Power voltage is 3V and fed with regulated dc power supply from external power in jack.
  Voltages are dc with respect to ground.
  Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S1	SW BAND	SW1
S2	TONE	NEWS
S101	OFF	OFF
S102	FM	OFF
S103	MW	OFF
S104	SW	OFF
S105	SAFETY	OFF

- ▨ : signal path.

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

A B C D E F G H I J

Q2 2SK152-2 SW 1ST MIX

Q3 2SK161 SW 2ND MIX

D6 1S1555

IC1 CX20091 FM/AM, FRONT-END/IF/DET/AMP/REGULATOR

Q11 2SC1623 LOWPASS FILTER

D16 RD5.6EB1

D15 RD5.6EB1

BPF

FM FRONT-END

AM FRONT-END

FM IF/DICRI

AM IF/DET/AGC

TUNING METER

IC1 (1/3)

RIPPLE FILTER

REGULATOR

AF POWER AMP

VOL

S2-1 TONE MUSIC NEWS

S2-2 TONE MUSIC NEWS

【VOLUME BOARD】

J1 (EARPHONE)

SPEAKER

J2 DC IN 3V

DRY BATTERY SIZE "AA" (IEC DESIGNATION R6) 2PCS, 3V

T1 SW 1ST MIX

T2 SW 2ND MIX

T3 MW IFT

T4 SW 2ND OSC

LI2 MW FERRITE-ROD ANT

MW OSC

CFA1

CFA2

CFFI

CFI

Q8 2SC1623 BAND SWITCH

Q10 2SC1623 FM HIGH CUT MUTING

D12 1S1555

D10, 11 1S1555

Q9 2SC2223 MW SHANT

D7 1S1555

D9 SLP144B

D9 TUNING

Q6 2SC2223 SW 1ST OSC

Q7 2SC2223 SW 2ND OSC

D8 1S1555

S1-2 SW 1 2 3 4 5 6 7

X1 : 16.8 MHz
X2 : 17.9 MHz
X3 : 20.35 MHz
X4 : 22.55 MHz
X5 : 25.95 MHz
X6 : 28.5 MHz
X7 : 32.35 MHz

Q101, 102 2SA812 SWITCHING

IC102 TC40H002F INVERTER

Q103 2SB624 SWITCHING

Q104 2SA812 SWITCHING

D109 1S1555

D101 1S2837

D103-105 SR506D3

D110 RD5,6EB1

IC101 TC40H002F RS FF

IC102 TC40H002F RS FF

D108 1S1555

D102 1S2837

D107 1S2837

D106 1S2837

S101 OFF

S102 FM

S103 MW

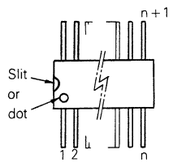
S104 SW

S105 SAFETY HOLD

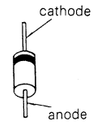
【SWITCH BOARD】

Semiconductor Lead Layouts

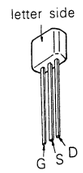
CX20091
TC40H002F



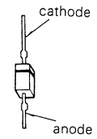
1SS119
RD5.6E-B1



2SK193-K

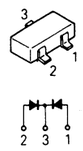


1T26N

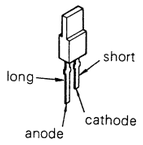


2SK152-2

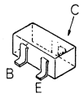
1S2837



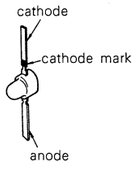
SLP144B



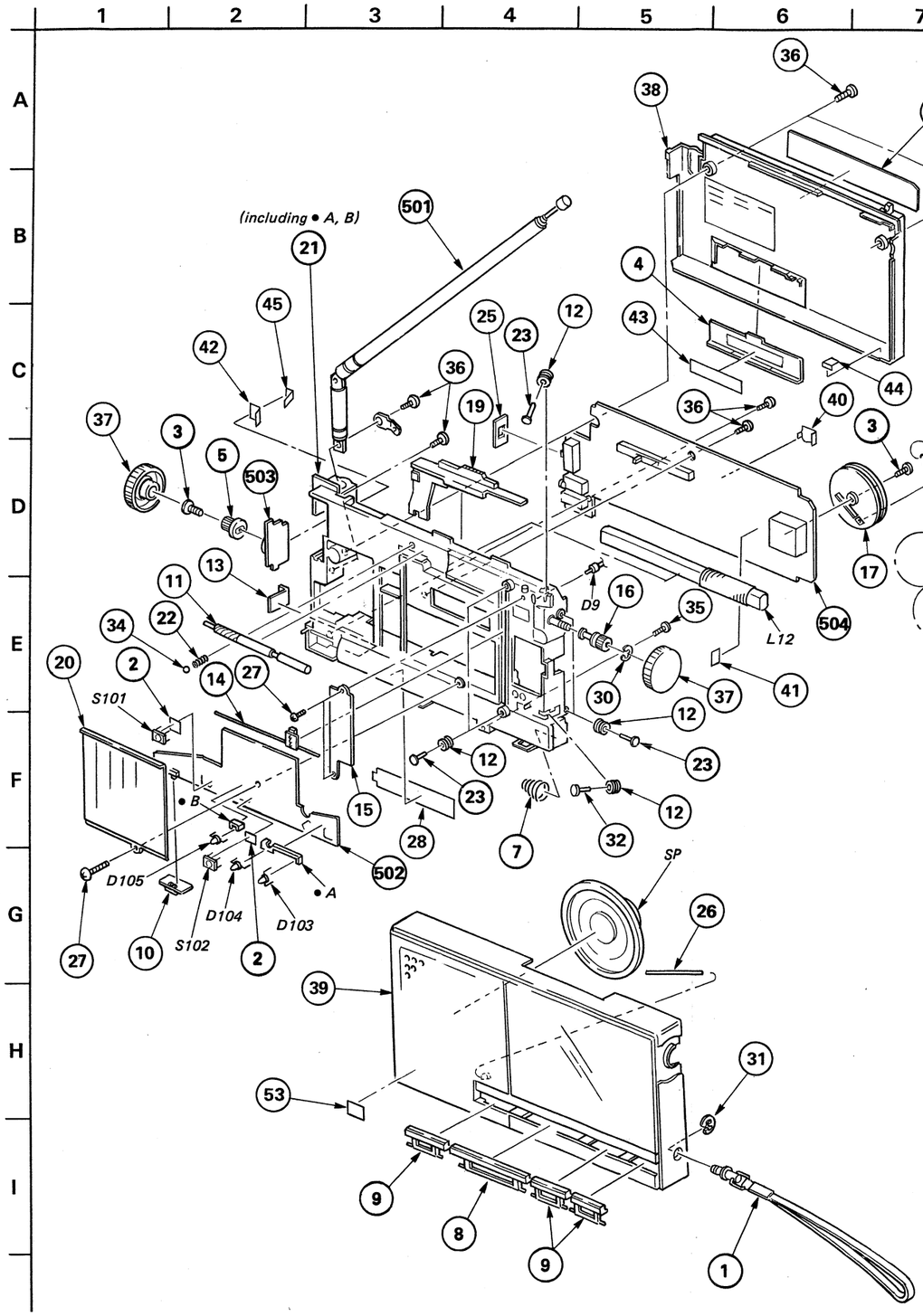
2SA1162-G
2SB624-BV5
2SC2223-F14
2SC2712-G



SR506D3



SECTION 5
EXPLODED VIEW AND PARTS LIST

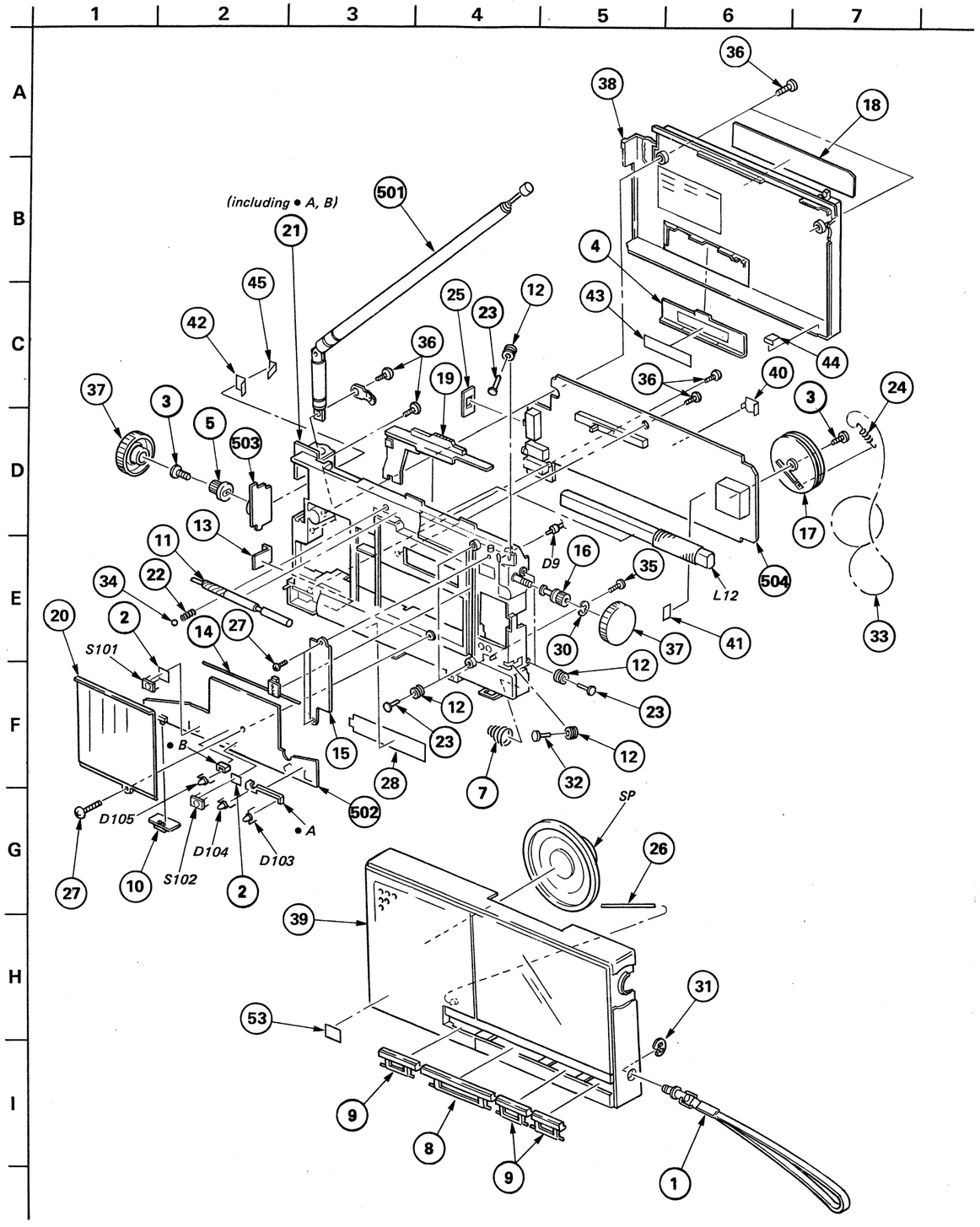


No.	Par
1	3-[illegible]
1	3-[illegible]
2	3-[illegible]
3	3-[illegible]
4	3-[illegible]
4	3-[illegible]
5	3-[illegible]
6	• • •
7	3-[illegible]
8	3-[illegible]
9	3-[illegible]
10	3-[illegible]
10	3-[illegible]
11	3-[illegible]
12	3-[illegible]
13	3-[illegible]
14	3-[illegible]
15	3-[illegible]
16	3-[illegible]
17	3-[illegible]
18	3-[illegible]
19	3-[illegible]
19	3-[illegible]
20	3-[illegible]
21	*3-[illegible]
21	*3-[illegible]
22	3-[illegible]
23	3-[illegible]
24	3-[illegible]
25	9-[illegible]
26	3-[illegible]
27	3-[illegible]
28	3-[illegible]
29	• •
30	7-[illegible]
31	7-[illegible]
32	7-[illegible]
33	7-[illegible]
34	7-[illegible]
35	7-[illegible]
36	7-[illegible]
37	X-[illegible]
38	X-[illegible]
38	X-[illegible]

NOTE:

- The mecha number ir supplied.
- Items ma they are service. pated wh
- If there set such typical c capacitor circuits

SECTION 5
EXPLODED VIEW AND PARTS LIST



GENERAL SECTION

No.	Part No.	Description
1	3-881-938-00	(BLACK)...STRAP, HAND
1	3-881-938-11	(SILVER)...STRAP, HAND
2	3-885-031-01	SPACER (A)
3	3-888-156-00	SCREW (1.7X4)
4	3-889-802-00	(BLACK)....LID, BATTERY CASE
4	3-889-802-51	(SILVER)...LID, BATTERY CASE
5	3-889-808-00	SHAFT, CONTROL
6	.....	
7	3-889-819-00	SPRING
8	3-893-902-01	BUTTON (L), SELECTION
9	3-893-903-01	BUTTON (S), SELECTION
10	3-893-905-01	(BLACK)....KNOB, HOLD
10	3-893-905-11	(SILVER)...KNOB, HOLD
11	3-893-907-01	DRUM, INDICATE
12	3-893-908-01	PULLEY (DIA.4)
13	3-893-910-01	PLATE, POLE, BATTERY
14	3-893-911-01	POINTER
15	3-893-912-01	SCALE (B), DIAL
16	3-893-913-01	SHAFT, TUNING
17	3-893-914-01	DRUM, DIAL
18	3-893-917-01	(4910)....LABEL, MODEL NUMBER
19	3-893-919-01	(BLACK)....KNOB, SUB BAND
19	3-893-919-11	(SILVER)...KNOB, SUB BAND
20	3-893-920-01	SCALE (A), DIAL
21	*3-893-923-01	(BLACK)....CHASSIS
21	*3-893-923-11	(SILVER)...CHASSIS
22	3-893-926-01	SPRING, COMPRESSION
23	3-893-927-01	RIVET
24	3-893-928-01	SPRING
25	9-911-838-XX	SHEET, BLIND
26	3-893-933-01	SPRING
27	3-893-942-01	SCREW (1.7X4), TAPPING (B)
28	3-893-944-01	SHEET INDICATION, POLARITY
29	.....	
30	7-624-103-01	RETAINING, RING E-1.9
31	7-624-104-04	STOP RING 2.0, TYPE -E
32	7-625-702-80	RIVET
33	7-633-120-52	STRING, DIAL
34	7-671-113-02	STEEL BOLL 3.0
35	7-685-104-14	SCREW +P 2X6 TYPE2 SLIT
36	7-685-135-14	SCREW +P 2.6X10 TYPE2 NON-SLIT
37	X-3889-802-1	TUNING KNOB ASSY
38	X-3893-901-1	(BLACK)....CABINET (REAR) ASSY
38	X-3893-902-1	(SILVER)...CABINET (REAR) ASSY

GENERAL SECTION

No.	Part No.	Description
39	X-3893-903-1	(4900;BLACK)....CABINET (FRONT) ASSY
39	X-3893-904-1	(4900;SILVER)...CABINET (FRONT) ASSY
39	X-3893-905-1	(4910;BLACK)....CABINET (FRONT) ASSY
39	X-3893-906-1	(4910;SILVER)...CABINET (FRONT) ASSY
40	*3-893-947-01	FOIL (B), COPPER
41	*3-893-948-01	FOIL (C), COPPER
42	*3-893-949-01	FOIL (D), COPPER
43	3-831-441-XX	CUSHION (B)
44	*3-893-952-01	FOIL (E), COPPER
45	*3-893-953-01	FOIL (F), COPPER

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
51	1-504-059-11	MAGNETIC EARPHONE (ME-20H)
52	3-570-631-01	BAG, POLYETHYLENE
53	3-703-710-01	STICKER, SONY SYMBOL (12)
54	3-893-934-01	CASE, CARRYING
55	3-893-936-01	(4900)...INDIVIDUAL CARTON
55	3-893-939-01	(4910)...INDIVIDUAL CARTON
56	3-893-940-01	(4900)...GUIDE, SHORT WAVE
56	3-893-940-11	(4910)...GUIDE, SHORT WAVE
57	3-893-938-01	CUSHION
58	3-893-950-01	SHEET
59	3-990-005-11	(4900)....MANUAL, INSTRUCTION
60	3-990-005-21	(4910)....MANUAL, INSTRUCTION
61	3-990-005-31	(4910;Canadian)...MANUAL, INSTRUCTION
62	3-993-321-11	INSTRUCTION
63	7-703-895-01	(BLACK)....LABEL (L), COLOR
63	7-703-906-01	(SILVER)...LABEL (L), COLOR
64	7-703-910-01	(BLACK)....LABEL (S), COLOR
64	7-703-921-01	(SILVER)...LABEL (S), COLOR

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

- All capacitors are in µF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:µF, PF:µµF.

COILS

- MMH : mH, UH : µH

SEMICONDUCTORS

In each case, U : µ, for example:
UA···: µA···, UPA···: µPA···, UPC···: µPC,
UPD···: µPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
501	1-501-323-11	ANTENNA, TELESCOPIC			
502	*1-613-378-11	PC BOARD, SWITCH			
503	*1-613-379-11	PC BOARD, VOLUME			
504	*A-3660-525-A	MOUNTED PCB, MAIN			
BPF	1-235-171-00	FILTER, BAND PASS			
C1	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C2	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C3	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C4	1-162-306-31	CERAMIC	0.01MF	10%	50V
C5	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C6	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C7	1-162-327-00	CERAMIC MELF	3.3PF	10%	50V
C8	1-123-647-00	ELECT	47MF	20%	6.3V
C9	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C10	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C11	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C12	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C13	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C14	1-124-434-00	ELECT	220MF	20%	4V
C15	1-163-189-00	CERAMIC CHIP	220PF	5%	50V
C16	1-102-973-00	CERAMIC	100PF	5%	50V
C17	1-101-888-00	CERAMIC	68PF	5%	50V
C18	1-101-884-00	CERAMIC	56PF	5%	50V
C19	1-161-013-00	CERAMIC	0.01MF	10%	25V
C20	1-102-914-00	CERAMIC	130PF	5%	50V
C21	1-162-330-00	CERAMIC MELF	5.6PF	10%	50V
C22	1-101-884-00	CERAMIC	56PF	5%	50V
C23	1-102-529-00	CERAMIC	100PF	10%	50V
C24	1-102-529-00	CERAMIC	100PF	10%	50V
C25	1-162-306-31	CERAMIC	0.01MF	10%	50V
C26	1-124-430-00	ELECT	22MF	20%	
C27	1-131-387-00	TANTAL	47MF	20%	6.3V
C28	1-131-393-00	TANTAL	47MF	20%	3.15V
C29	1-102-942-00	CERAMIC	5PF	0.5PF	50V
C30	1-102-960-00	CERAMIC	24PF	5%	50V
C31	1-102-883-00	CERAMIC	27PF	5%	50V
C32	1-162-331-00	CERAMIC MELF	6.8PF	10%	50V
C33	1-163-073-00	CERAMIC CHIP	0.022MF		50V
C35	1-163-059-00	CERAMIC	0.01MF	10%	50V
C36	1-123-616-00	ELECT	4.7MF	20%	25V
C37	1-163-181-00	CERAMIC CHIP	100PF	10%	50V
C38	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C39	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C40	1-123-610-00	ELECT	0.47MF	20%	50V
C41	1-123-616-00	ELECT	4.7MF	20%	25V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C42	1-123-617-00	ELECT	10MF	20%	16V
C43	1-163-073-00	CERAMIC CHIP	0.022MF		50V
C44	1-123-618-00	ELECT	22MF	20%	6.3V
C45	1-131-388-00	TANTAL	68MF	20%	6.3V
C46	1-124-413-00	ELECT	220MF	20%	4V
C47	1-163-828-00	CERAMIC CHIP	0.056MF	10%	50V
C48	1-124-434-00	ELECT	220MF	20%	4V
C49	1-163-828-00	CERAMIC CHIP	0.056MF	10%	50V
C50	1-123-610-00	ELECT	0.47MF	20%	50V
C51	1-123-610-00	ELECT	0.47MF	20%	50V
C52	1-161-013-00	CERAMIC	0.01MF	10%	25V
C53	1-161-013-00	CERAMIC	0.01MF	10%	25V
C54	1-123-618-00	ELECT	22MF	20%	6.3V
C55	1-123-607-00	ELECT	0.1MF	20%	50V
C56	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C57	1-131-479-00	TANTAL	0.047MF	20%	16
C58	1-124-413-00	ELECT	220MF	20%	4V
C59	1-163-148-00	CERAMIC CHIP	1.5PF	20%	50V
C60	1-124-413-00	ELECT	220MF	20%	4V
C61	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C62	1-101-884-00	CERAMIC	56PF	5%	50V
C101	1-163-059-00	CERAMIC CHIP	0.01MF	5%	50V
C102	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C103	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C104	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C105	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C106	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C107	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
CF1	1-567-097-61	FILTER, CERAMIC			
CFA1	1-567-312-11	FILTER, CERAMIC			
CFA2	1-527-982-00	FILTER, CERAMIC			
CFF1	1-567-097-61	FILTER, CERAMIC			
CT1	1-141-311-11	CAP, VAR, TRIMMER			
CT5	1-141-290-00	CAP, FILM TRIMMER			
CV1-5	1-151-480-11	CAP, TUNING, POLYETHYLEN			
CT2-4	1-151-480-11	CAP, TUNING, POLYETHYLEN			
D1	8-719-104-15	DIODE 1T26N			
D2	8-719-911-19	DIODE 1SS119			
D3	8-719-911-19	DIODE 1SS119			
D4	8-719-104-15	DIODE 1T26N			
D5	8-719-104-15	DIODE 1T26N			
D6	8-719-911-19	DIODE 1SS119			
D7	8-719-911-19	DIODE 1SS119			
D8	8-719-911-19	DIODE 1SS119			
D9	8-719-901-44	DIODE SLP144B			

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

COILS

- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D10	8-719-911-19	DIODE 1SS119
D11	8-719-911-19	DIODE 1SS119
D12	8-719-911-19	DIODE 1SS119
D15	8-719-100-34	DIODE RD5.6EB1
D101	8-719-100-05	DIODE 1S2837
D102	8-719-100-05	DIODE 1S2837
D103	8-719-104-37	DIODE SR506D3
D104	8-719-104-37	DIODE SR506D3
D105	8-719-104-37	DIODE SR506D3
D106	8-719-100-05	DIODE 1S2837
D107	8-719-100-05	DIODE 1S2837
D108	8-719-911-19	DIODE 1SS119
D109	8-719-911-19	DIODE 1SS119
D110	8-719-100-34	DIODE RD5.6EB1
IC1	8-752-009-10	IC CX20091
IC101	8-759-201-60	IC TC40H002F
IC102	8-759-201-60	IC TC40H002F
J1	1-507-921-00	JACK
J2	1-507-850-00	JACK, EXTENTION POWER
L1	1-402-127-11	COIL (ANT)
L2	1-402-126-11	COIL (ANT)
L3	1-406-053-00	COIL (OSC)
L4	1-402-125-11	COIL (ANT)
L5	1-406-082-11	COIL, OSCILLATION
L6	1-402-025-00	COIL (ANT)
L7	1-402-124-00	COIL (ANT)
L8	1-410-008-00	MICRO INDUCTOR 0.82UH
L9	1-410-026-00	MICRO INDUCTOR 27UH
L10	1-410-018-00	MICRO INDUCTOR 5.6UH
L11	1-410-015-00	MICRO INDUCTOR 3.3UH
L12	1-402-122-11	ANTENNA, FERRITE-ROD (MW)
L13	1-459-435-00	COIL (WITH CORE)
L14	1-459-418-00	COIL (WITH CORE)
L15	1-405-989-00	COIL, OSC
L16	1-425-607-00	COIL, AIR-CORE QF TYPE
Q1	8-729-119-35	TRANSISTOR 2SK193-K
Q2	8-769-162-00	TRANSISTOR 2SK152-2
Q3	8-729-119-35	TRANSISTOR 2SK193-K
Q4	8-729-100-66	TRANSISTOR 2SC1623
Q5	8-729-100-66	TRANSISTOR 2SC1623
Q6	8-729-102-08	TRANSISTOR 2SC2223-F14
Q7	8-729-102-08	TRANSISTOR 2SC2223-F14
Q8	8-729-271-22	TRANSISTOR 2SC2712-G
Q9	8-729-102-08	TRANSISTOR 2SC2223-F14

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q10	8-729-100-66	TRANSISTOR 2SC1623			
Q11	8-729-100-66	TRANSISTOR 2SC1623			
Q101	8-729-216-22	TRANSISTOR 2SA1162-G			
Q102	8-729-216-22	TRANSISTOR 2SA1162-G			
Q103	8-729-162-45	TRANSISTOR 2SB624-BV5			
Q104	8-729-216-22	TRANSISTOR 2SA1162-G			
R1	1-249-001-00	CARBON MELF	1	5%	1/5W
R2	1-247-799-00	CARBON	47	5%	1/6W
R3	1-247-825-00	CARBON	560	5%	1/6W
R4	1-247-839-00	CARBON	2.2K	5%	1/6W
R5	1-247-879-00	CARBON	100K	5%	1/6W
R6	1-247-841-00	CARBON	2.7K	5%	1/6W
R7	1-247-807-00	CARBON	100	5%	1/6W
R8	1-247-819-00	CARBON	330	5%	1/6W
R9	1-247-819-00	CARBON	330	5%	1/6W
R10	1-247-795-00	CARBON	33	5%	1/6W
R11	1-247-857-00	CARBON	12K	5%	1/6W
R12	1-247-807-00	CARBON	100	5%	1/6W
R13	1-247-855-00	CARBON	10K	5%	1/6W
R14	1-247-855-00	CARBON	10K	5%	1/6W
R15	1-247-827-00	CARBON	680	5%	1/6W
R16	1-247-831-00	CARBON	1K	5%	1/6W
R17	1-247-865-00	CARBON	27K	5%	1/6W
R18	1-247-847-00	CARBON	4.7K	5%	1/6W
R19	1-247-847-00	CARBON	4.7K	5%	1/6W
R20	1-247-831-00	CARBON	1K	5%	1/6W
R21	1-247-873-00	CARBON	56K	5%	1/6W
R22	1-247-823-00	CARBON	470	5%	1/6W
R23	1-247-839-00	CARBON	2.2K	5%	1/6W
R24	1-247-863-00	CARBON	22K	5%	1/6W
R25	1-247-831-00	CARBON	1K	5%	1/6W
R26	1-247-831-00	CARBON	1K	5%	1/6W
R27	1-247-791-00	CARBON	22	5%	1/6W
R29	1-247-811-00	CARBON	150	5%	1/6W
R30	1-247-889-00	CARBON	270K	5%	1/6W
R31	1-247-839-00	CARBON	2.2K	5%	1/6W
R32	1-247-887-00	CARBON	220K	5%	1/6W
R33	1-247-831-00	CARBON	1K	5%	1/6W
R34	1-247-879-00	CARBON	100K	5%	1/6W
R35	1-247-877-00	CARBON	82K	5%	1/6W
R36	1-247-851-00	CARBON	6.8K	5%	1/6W
R37	1-247-851-00	CARBON	6.8K	5%	1/6W
R38	1-247-867-00	CARBON	33K	5%	1/6W
R39	1-247-879-00	CARBON	100K	5%	1/6W
R40	1-247-839-00	CARBON	2.2K	5%	1/6W

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
  MF:μF, PF:μμF.

COILS

- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R41	1-247-831-00	CARBON	1K	5%	1/6W
R42	1-247-843-00	CARBON	3.3K	5%	1/6W
R46	1-247-893-00	CARBON	390K	5%	1/6W
R47	1-247-843-00	CARBON	3.3K	5%	1/6W
R48	1-247-835-00	CARBON	1.5K	5%	1/6W
R101	1-249-001-00	CARBON MELF	1	5%	1/5W
R102	1-249-001-00	CARBON MELF	1	5%	1/5W
R103	1-247-801-00	CARBON	56	5%	1/6W
R104	1-249-001-00	CARBON MELF	1	5%	1/5W
R105	1-247-875-00	CARBON	68K	5%	1/6W
R106	1-247-863-00	CARBON	22K	5%	1/6W
R107	1-247-825-00	CARBON	560	5%	1/6W
R108	1-247-825-00	CARBON	560	5%	1/6W
R109	1-247-839-00	CARBON	2.2K	5%	1/6W
R110	1-247-875-00	CARBON	68K	5%	1/6W
R111	1-247-879-00	CARBON	100K	5%	1/6W
R112	1-249-001-00	CARBON MELF	1	5%	1/5W
R113	1-247-879-00	CARBON	100K	5%	1/6W
R114	1-249-001-00	CARBON MELF	1	5%	1/5W
R115	1-247-879-00	CARBON	100K	5%	1/6W
R116	1-247-879-00	CARBON	100K	5%	1/6W
R117	1-249-001-00	CARBON MELF	1	5%	1/5W
R118	1-249-001-00	CARBON MELF	1	5%	1/5W
R119	1-249-001-00	CARBON MELF	1	5%	1/5W
R120	1-247-879-00	CARBON	100K	5%	1/6W
R121	1-247-879-00	CARBON	100K	5%	1/6W
R122	1-249-001-00	CARBON MELF	1	5%	1/5W
R123	1-249-001-00	CARBON MELF	1	5%	1/5W
R124	1-249-001-00	CARBON MELF	1	5%	1/5W
S1	1-554-979-11	SWITCH, SLIDE (SW BAND)			
S2	1-554-123-00	SWITCH, SLIDE (TONE)			
S101	1-554-978-11	SWITCH, KEY BOARD (OFF)			
S102	1-554-978-11	SWITCH, KEY BOARD (FM)			
S103	1-554-978-11	SWITCH, KEY BOARD (MW)			
S104	1-554-978-11	SWITCH, KEY BOARD (SW)			
S105	1-553-510-00	SWITCH, SLIDE (SAFETY)			
SP	1-503-397-11	SPEAKER			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
T1	1-404-578-11	TRANSFORMER, IFT
T2	1-404-362-00	TRANSFORMER, IF
T3	1-404-362-00	TRANSFORMER, IF
T4	1-405-992-00	COIL, OSC
VR1	1-230-071-00	RES, VAR, CARBON 20K
X1	1-567-314-11	VIBRATOR, CRYSTAL
X2	1-567-315-11	VIBRATOR, CRYSTAL
X3	1-567-316-11	VIBRATOR, CRYSTAL
X4	1-567-317-11	VIBRATOR, CRYSTAL
X5	1-567-318-11	VIBRATOR, CRYSTAL
X6	1-567-319-11	VIBRATOR, CRYSTAL
X7	1-567-320-11	VIBRATOR, CRYSTAL

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

COILS

- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

9-951-492-11
(with 9-951-492-81)

Sony Corporation
Audio Group

English
87H0403-1
Printed in Japan
© 1984. 8

ICF-4900/4910

SERVICE MANUAL

SUPPLEMENT

File this supplement with the Service Manual.

Subject: Circuit Change

- Schematic and mounting diagrams have been changed.

- Appricable Seria No.

US, Canadian Model: 205,251 and later
AEP Model: 209,351 and later
G-AEP Model: 194,251 and later
UK Model: 194,851 and later
E Model: 198,451 and later

AEP Model
UK Model
E Model

ICF-4900

US Model
Canadian Model

ICF-4910

No. 1

FM/MW/SW 9BAND RECEIVER

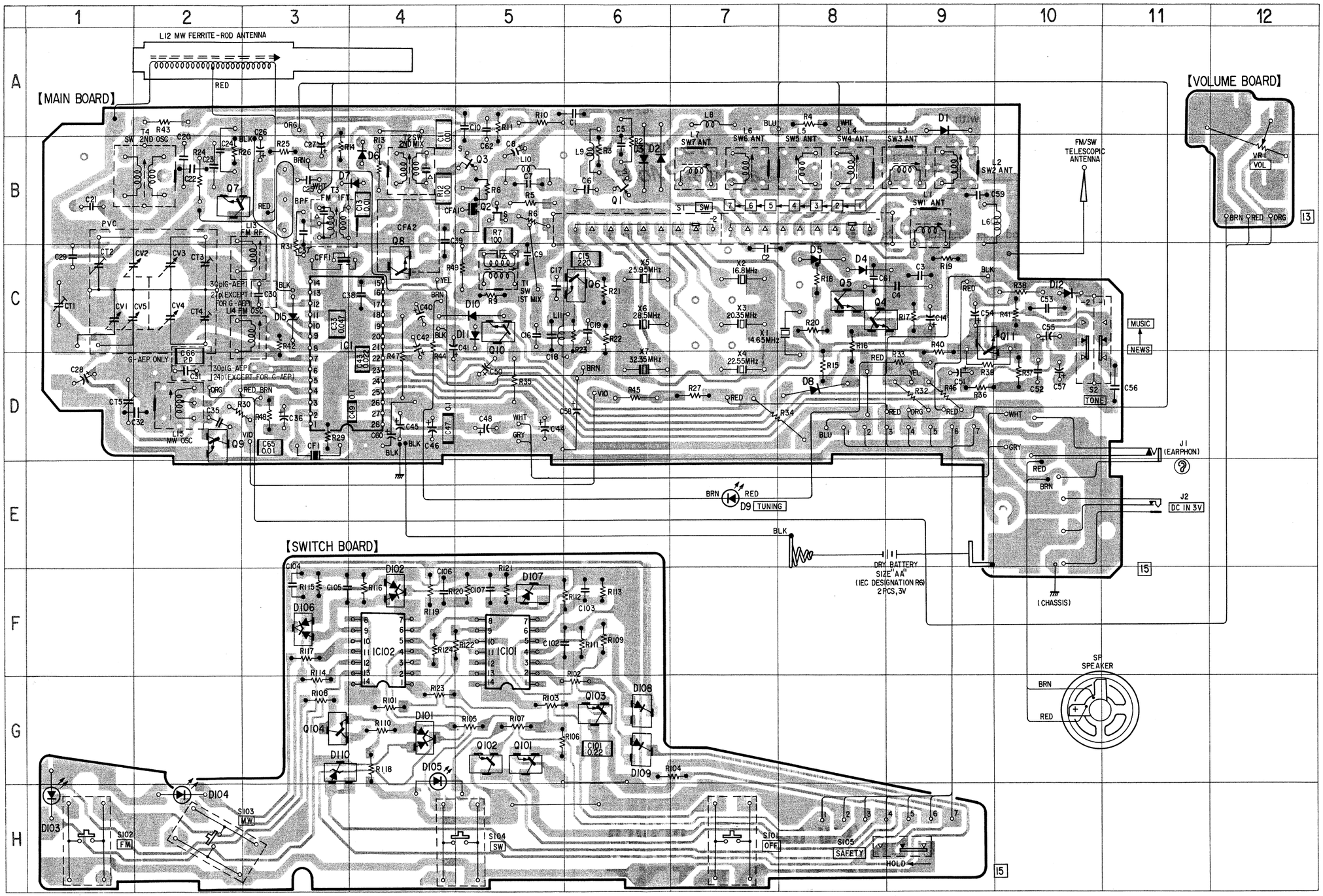
SONY®

TR

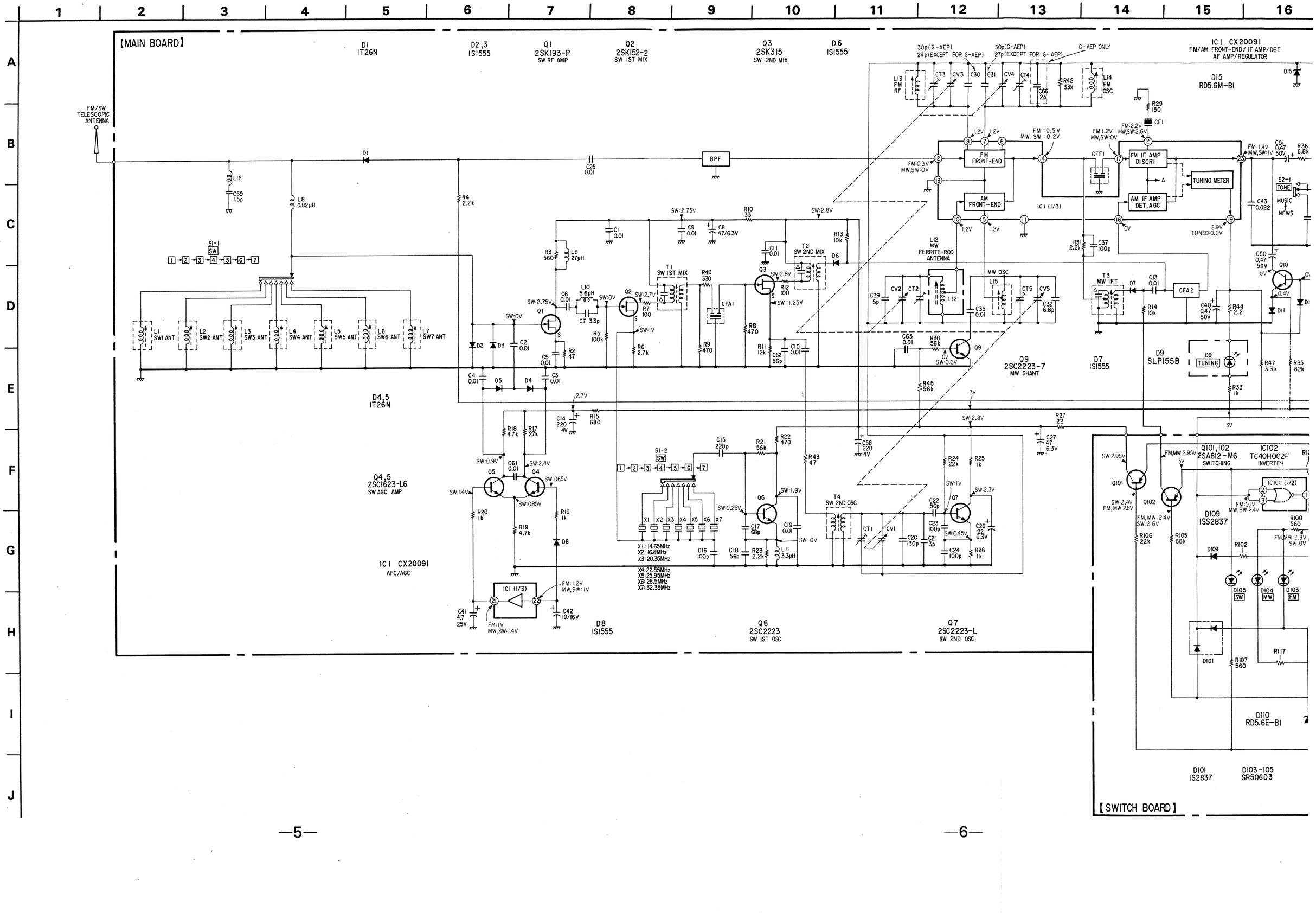
1. MOUNTING DIAGRAM

- Semiconductor Location

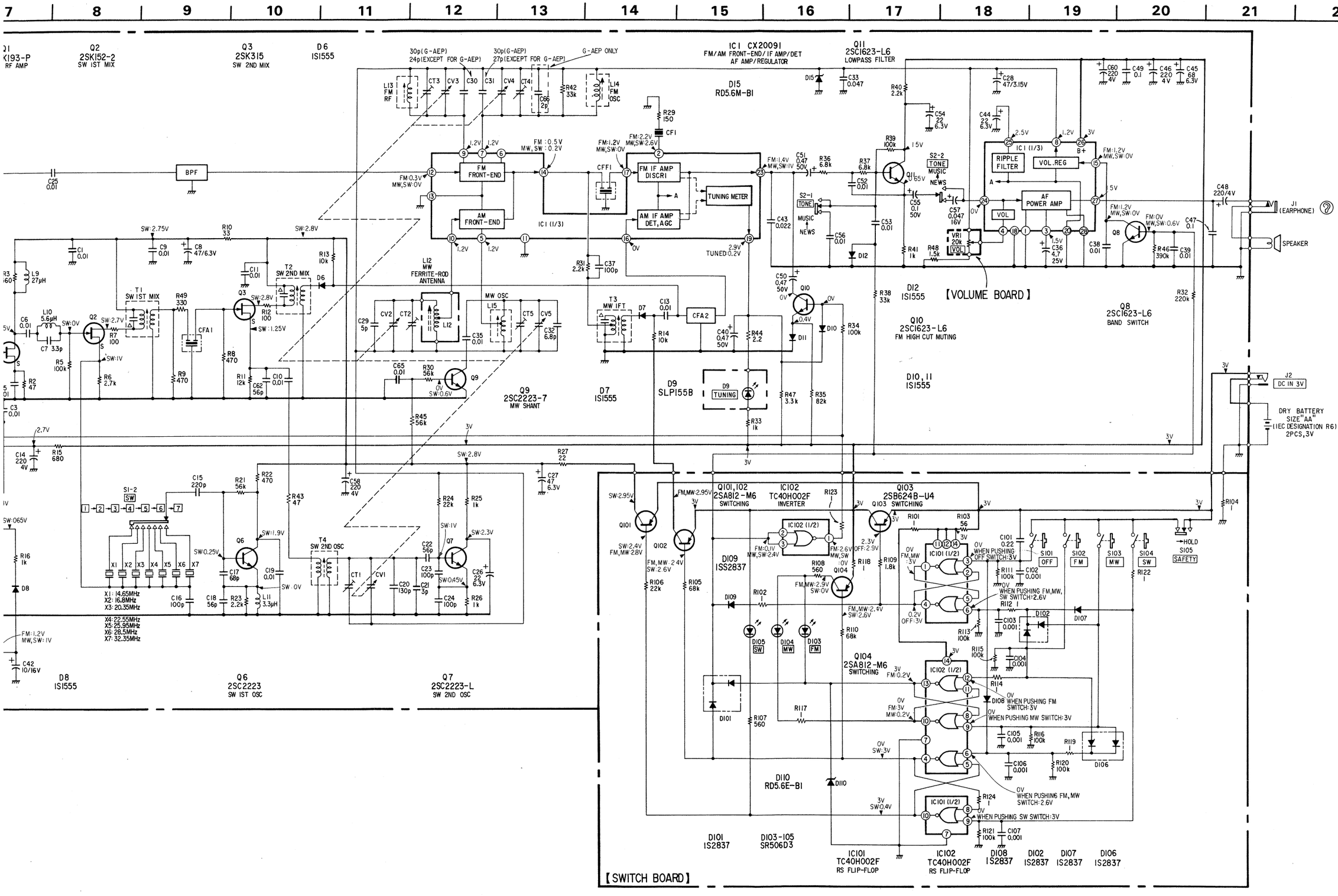
Ref. No.	Location
D1	A-9
D2	B-6
D3	B-6
D4	C-8
D5	C-8
D6	B-4
D7	B-4
D8	D-8
D9	E-7
D10	C-5
D11	C-5
D12	C-10
D15	C-3
D101	G-4
D102	F-4
D103	H-1
D104	H-2
D105	H-4
D106	F-3
D107	F-5
D108	G-6
D109	G-6
D110	G-3
IC1	D-3
IC101	F-5
IC102	F-4
Q1	B-6
Q2	B-5
Q3	B-5
Q4	C-8
Q5	C-8
Q6	C-6
Q7	B-2
Q8	C-4
Q9	D-2
Q10	C-5
Q11	C-9
Q101	G-5
Q102	G-5
Q103	G-6
Q104	G-3



2. SCHEMATIC DIAGRAM



ICF-4900/4910



3. ELECTRICAL PARTS LIST

NOTE:
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
501	1-501-323-11	ANTENNA, TELESCOPIC			
502	*1-613-378-15	PC BOARD, SWITCH			
503	*1-613-379-11	PC BOARD, VOL			
504	*A-3660-525-A	(EXCEPT FOR G-AEP)...MOUNTED PCB, MAIN			
	*A-3660-555-A	(G-AEP)...MOUNTED PCB, MAIN			
BPF	1-235-171-00	FILTER, BAND PASS			
C1	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C2	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C3	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C4	1-161-379-00	CERAMIC	0.01MF	30%	16V
C5	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C6	1-161-013-00	CERAMIC	0.01MF	10%	25V
C7	1-162-327-00	CERAMIC MELF	3.3PF	10%	50V
C8	1-131-387-00	TANTALUM	47MF	10%	6.3V
C9	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C10	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C11	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C13	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C14	1-124-434-00	ELECT	220MF	20%	4V
C15	1-163-189-00	CERAMIC CHIP	220PF	5%	50V
C16	1-102-973-00	CERAMIC	100PF	5%	50V
C17	1-101-888-00	CERAMIC	68PF	5%	50V
C18	1-163-175-00	CERAMIC MELF	56PF	5%	50V
C19	1-161-013-00	CERAMIC	0.01MF	10%	25V
C20	1-102-914-00	CERAMIC	130PF	5%	50V
C21	1-102-936-00	CERAMIC	3PF	0.5PF	50V
C22	1-163-175-00	CERAMIC MELF	56PF	5%	50V
C23	1-102-529-00	CERAMIC	100PF	5%	50V
C24	1-102-529-00	CERAMIC	100PF	5%	50V
C25	1-161-013-00	CERAMIC	0.01MF	10%	25V
C26	1-124-638-11	ELECT	22MF	20%	6.3V
C27	1-131-387-00	TANTALUM	47MF	10%	6.3V
C28	1-131-393-00	TANTALUM	47MF	10%	3.15V
C29	1-102-942-00	CERAMIC	5PF	0.5PF	50V
C30	1-102-960-00	(EXCEPT FOR G-AEP)..CERAMIC	24PF	5%	50V
C30	1-102-962-00	(G-AEP)...CERAMIC	30PF	5%	50V
C31	1-102-961-00	(EXCEPT FOR G-AEP)..CERAMIC	27PF	5%	50V
C31	1-102-673-00	(G-AEP)...CERAMIC	30PF	5%	50V
C32	1-162-331-00	CERAMIC MELF	6.8PF	10%	50V
C33	1-163-035-00	CERAMIC CHIP	0.047MF	10%	25V
C35	1-161-013-00	CERAMIC	0.01MF	10%	25V
C36	1-124-245-00	ELECT	4.7MF	20%	25V
C37	1-163-181-00	CERAMIC MELF	100PF	10%	50V
C38	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C39	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V

ELECTRICAL PART

Ref.No.	Part No.	Description			
C40	1-124-465-00	ELECT	0.47MF	20%	50V
C41	1-124-245-00	ELECT	4.7MF	20%	25V
C42	1-123-617-00	ELECT	10MF	20%	16V
C43	1-163-063-00	CERAMIC CHIP	0.022MF		50V
C44	1-124-638-11	ELECT	22MF	20%	6.3V
C45	1-131-388-00	TANTALUM	68MF	10%	6.3V
C46	1-124-434-00	ELECT	220MF	20%	4V
C47	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C48	1-124-434-00	ELECT	220MF	20%	4V
C49	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C50	1-124-465-00	ELECT	0.47MF	20%	50V
C51	1-124-465-00	ELECT	0.47MF	20%	50V
C52	1-161-013-00	CERAMIC	0.01MF	10%	25V
C53	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C54	1-124-638-11	ELECT	22MF	20%	6.3V
C55	1-124-463-00	ELECT	0.1MF	20%	50V
C56	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C57	1-131-479-00	TANTALUM	0.047MF	20%	16V
C58	1-124-413-00	ELECT	220MF	20%	4V
C59	1-163-148-00	CERAMIC MELF	1.5PF	20%	50V
C60	1-124-413-00	ELECT	220MF	20%	4V
C61	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C62	1-101-884-00	CERAMIC	56PF	5%	50V
C65	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C66	1-163-149-00	(G-AEP)...CERAMIC CHIP	2PF	0.25PF	50V
C101	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C102	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C103	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C104	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C105	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C106	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C107	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
CF1	1-567-097-61	FILTER, CERAMIC			
CFA1	1-567-561-11	FILTER, CERAMIC			
CFA2	1-527-982-00	FILTER, CERAMIC			
CFF1	1-567-097-61	FILTER, CERAMIC			
CT1	1-141-311-11	CAP, VAR, TRIMMER			
CT5	1-141-290-11	CAP, VAR FILM TRIMMER			
CT2-4	1-151-480-11	CAP, TUNING, POLYETHYLEN			
CV1-5	1-151-480-11	CAP, TUNING, POLYETHYLEN			
D1	8-719-104-15	DIODE 1T26N			
D2	8-719-815-55	DIODE 1S1555			
D3	8-719-815-55	DIODE 1S1555			
D4	8-719-104-15	DIODE 1T26N			

ELECTRICAL PART

Ref.No.	Part No.	Description
D5	8-719-104-15	DIODE 1T26N
D6	8-719-911-19	DIODE 1SS119
D7	8-719-911-19	DIODE 1SS119
D8	8-719-815-55	DIODE 1S1555
D9	8-719-901-44	DIODE SLP144B
D10	8-719-911-19	DIODE 1SS119
D11	8-719-911-19	DIODE 1SS119
D12	8-719-911-19	DIODE 1SS119
D15	8-719-109-88	DIODE RD5.6ES-B1
D101	8-719-100-05	DIODE 1S2837
D102	8-719-100-05	DIODE 1S2837
D103	8-719-104-37	DIODE SR506D3
D104	8-719-104-37	DIODE SR506D3
D105	8-719-104-37	DIODE SR506D3
D106	8-719-100-05	DIODE 1S2837
D107	8-719-100-05	DIODE 1S2837
D108	8-719-100-05	DIODE 1S2837
D109	8-719-100-05	DIODE 1S2837
D110	8-719-105-91	DIODE RD5.6M-B2
IC1	8-752-009-10	IC CX20091
IC101	8-759-201-60	IC TC40H002F
IC102	8-759-201-60	IC TC40H002F
J1	1-507-921-00	JACK
J2	1-507-850-00	JACK, EXTENTION POWER
L1	1-402-127-11	COIL (ANT)
L2	1-402-126-11	COIL (ANT)
L3	1-406-053-00	COIL (OSC)
L4	1-402-125-11	COIL (ANT)
L5	1-406-082-11	COIL, OSCILLATION
L6	1-402-025-00	COIL (ANT)
L7	1-402-124-11	COIL (ANT)
L8	1-410-360-11	MICRO INDUCTOR 0.82UH
L9	1-410-363-11	MICRO INDUCTOR 27UH
L10	1-410-325-11	MICRO INDUCTOR 5.6UH
L11	1-410-322-11	MICRO INDUCTOR 3.3UH
L12	1-402-122-11	ANTENNA, FERRITE-ROD (MW)
L13	1-459-435-00	COIL (WITH CORE)
L14	1-459-418-00	COIL (WITH CORE)
L15	1-405-989-00	COIL, OSC
L16	*1-425-607-00	COIL,AIR-CORE QF TYPE
Q1	8-729-119-35	TRANSISTOR 2SK193-K
Q2	8-769-162-00	TRANSISTOR 2SK152-2
Q3	8-729-802-66	TRANSISTOR 2SK315-F
Q4	8-729-100-66	TRANSISTOR 2SC1623
Q5	8-729-100-66	TRANSISTOR 2SC1623
Q6	8-729-102-06	TRANSISTOR 2SC2223

ELECTRICAL PART

Ref.No.	Part No.	Description			
Q7	8-729-102-06	TRANSISTOR 2SC2223			
Q8	8-729-271-22	TRANSISTOR 2SC2712-G			
Q9	8-729-102-06	TRANSISTOR 2SC2223			
Q10	8-729-100-66	TRANSISTOR 2SC1623			
Q11	8-729-100-66	TRANSISTOR 2SC1623			
Q101	8-729-100-76	TRANSISTOR 2SA812			
Q102	8-729-100-76	TRANSISTOR 2SA812			
Q103	8-729-162-44	TRANSISTOR 2SB624-BV4			
Q104	8-729-100-76	TRANSISTOR 2SA812			
R2	1-249-401-11	CARBON	47	5%	1/6W
R3	1-249-414-11	CARBON MELF	560	5%	1/5W
R4	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R5	1-249-441-11	CARBON	100K	5%	1/6W
R6	1-249-422-11	CARBON	2.7K	5%	1/6W
R7	1-216-025-00	METAL CHIP	100	5%	1/10W
R8	1-249-413-11	CARBON MELF	470	5%	1/5W
R9	1-249-413-11	CARBON MELF	470	5%	1/5W
R10	1-249-399-11	CARBON	33	5%	1/6W
R11	1-249-430-11	CARBON MELF	12K	5%	1/5W
R12	1-216-174-00	METAL CHIP	100	5%	1/8W
R13	1-249-429-11	CARBON	10K	5%	1/6W
R14	1-249-429-11	CARBON MELF	10K	5%	1/5W
R15	1-249-035-00	CARBON MELF	680	5%	1/5W
R16	1-249-417-11	CARBON MELF	1K	5%	1/5W
R17	1-249-434-11	CARBON MELF	27K	5%	1/5W
R18	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R19	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R20	1-249-417-11	CARBON MELF	1K	5%	1/5W
R21	1-249-438-11	CARBON MELF	56K	5%	1/5W
R22	1-249-413-11	CARBON MELF	470	5%	1/5W
R23	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R24	1-249-433-11	CARBON	22K	5%	1/6W
R25	1-249-417-11	CARBON MELF	1K	5%	1/5W
R26	1-249-417-11	CARBON MELF	1K	5%	1/5W
R27	1-249-397-11	CARBON MELF	22	5%	1/5W
R29	1-249-407-11	CARBON MELF	150	5%	1/5W
R30	1-249-438-11	CARBON	56K	5%	1/6W
R31	1-249-421-11	CARBON	2.2K	5%	1/6W
R32	1-247-887-00	CARBON	220K	5%	1/6W
R33	1-249-417-11	CARBON	1K	5%	1/6W
R34	1-249-441-11	CARBON	100K	5%	1/6W
R35	1-249-440-11	CARBON	82K	5%	1/6W
R36	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R37	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R38	1-249-435-11	CARBON	33K	5%	1/6W

Ref.No.	Par
R39	1-2
R40	1-2
R41	1-2
R42	1-2
R43	1-2
R44	1-2
R45	1-2
R46	1-2
R47	1-2
R48	1-2
R49	1-2
R101	1-2
R102	1-2
R103	1-2
R104	1-2
R105	1-2
R106	1-2
R107	1-2
R108	1-2
R109	1-2
R110	1-2
R111	1-2
R112	1-2
R113	1-2
R114	1-2
R115	1-2
R116	1-2
R117	1-2
R118	1-2
R119	1-2
R120	1-2
R121	1-2
R122	1-2
R123	1-2
R124	1-2

ELECTRICAL PART

	Ref.No.	Part No.	Description
	D5	8-719-104-15	DIODE 1T26N
	D6	8-719-911-19	DIODE 1SS119
	D7	8-719-911-19	DIODE 1SS119
	D8	8-719-815-55	DIODE 1S1555
	D9	8-719-901-44	DIODE SLP144B
	D10	8-719-911-19	DIODE 1SS119
	D11	8-719-911-19	DIODE 1SS119
	D12	8-719-911-19	DIODE 1SS119
	D15	8-719-109-88	DIODE RD5.6ES-B1
	D101	8-719-100-05	DIODE 1S2837
	D102	8-719-100-05	DIODE 1S2837
50V	D103	8-719-104-37	DIODE SR506D3
25V			
16V	D104	8-719-104-37	DIODE SR506D3
	D105	8-719-104-37	DIODE SR506D3
50V	D106	8-719-100-05	DIODE 1S2837
6.3V			
6.3V	D107	8-719-100-05	DIODE 1S2837
	D108	8-719-100-05	DIODE 1S2837
4V	D109	8-719-100-05	DIODE 1S2837
25V	D110	8-719-105-91	DIODE RD5.6M-B2
4V			
	IC1	8-752-009-10	IC CX20091
25V	IC101	8-759-201-60	IC TC40H002F
50V	IC102	8-759-201-60	IC TC40H002F
50V			
	J1	1-507-921-00	JACK
25V	J2	1-507-850-00	JACK, EXTENTION POWER
16V			
6.3V	L1	1-402-127-11	COIL (ANT)
	L2	1-402-126-11	COIL (ANT)
50V	L3	1-406-053-00	COIL (OSC)
16V			
16V	L4	1-402-125-11	COIL (ANT)
	L5	1-406-082-11	COIL, OSCILLATION
4V	L6	1-402-025-00	COIL (ANT)
50V			
4V	L7	1-402-124-11	COIL (ANT)
	L8	1-410-360-11	MICRO INDUCTOR 0.82UH
16V	L9	1-410-363-11	MICRO INDUCTOR 27UH
50V			
50V	L10	1-410-325-11	MICRO INDUCTOR 5.6UH
	L11	1-410-322-11	MICRO INDUCTOR 3.3UH
5PF 50V	L12	1-402-122-11	ANTENNA, FERRITE-ROD (MW)
25V			
50V	L13	1-459-435-00	COIL (WITH CORE)
	L14	1-459-418-00	COIL (WITH CORE)
50V	L15	1-405-989-00	COIL, OSC
50V	L16	*1-425-607-00	COIL,AIR-CORE QF TYPE
50V			
	Q1	8-729-119-35	TRANSISTOR 2SK193-K
50V	Q2	8-769-162-00	TRANSISTOR 2SK152-2
50V	Q3	8-729-802-66	TRANSISTOR 2SK315-F
	Q4	8-729-100-66	TRANSISTOR 2SC1623
	Q5	8-729-100-66	TRANSISTOR 2SC1623
	Q6	8-729-102-06	TRANSISTOR 2SC2223

ELECTRICAL PART

Ref.No.	Part No.	Description			
Q7	8-729-102-06	TRANSISTOR 2SC2223			
Q8	8-729-271-22	TRANSISTOR 2SC2712-G			
Q9	8-729-102-06	TRANSISTOR 2SC2223			
Q10	8-729-100-66	TRANSISTOR 2SC1623			
Q11	8-729-100-66	TRANSISTOR 2SC1623			
Q101	8-729-100-76	TRANSISTOR 2SA812			
Q102	8-729-100-76	TRANSISTOR 2SA812			
Q103	8-729-162-44	TRANSISTOR 2SB624-BV4			
Q104	8-729-100-76	TRANSISTOR 2SA812			
R2	1-249-401-11	CARBON	47	5%	1/6W
R3	1-249-414-11	CARBON MELF	560	5%	1/5W
R4	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R5	1-249-441-11	CARBON	100K	5%	1/6W
R6	1-249-422-11	CARBON	2.7K	5%	1/6W
R7	1-216-025-00	METAL CHIP	100	5%	1/10W
R8	1-249-413-11	CARBON MELF	470	5%	1/5W
R9	1-249-413-11	CARBON MELF	470	5%	1/5W
R10	1-249-399-11	CARBON	33	5%	1/6W
R11	1-249-430-11	CARBON MELF	12K	5%	1/5W
R12	1-216-174-00	METAL CHIP	100	5%	1/8W
R13	1-249-429-11	CARBON	10K	5%	1/6W
R14	1-249-429-11	CARBON MELF	10K	5%	1/5W
R15	1-249-035-00	CARBON MELF	680	5%	1/5W
R16	1-249-417-11	CARBON MELF	1K	5%	1/5W
R17	1-249-434-11	CARBON MELF	27K	5%	1/5W
R18	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R19	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R20	1-249-417-11	CARBON MELF	1K	5%	1/5W
R21	1-249-438-11	CARBON MELF	56K	5%	1/5W
R22	1-249-413-11	CARBON MELF	470	5%	1/5W
R23	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R24	1-249-433-11	CARBON	22K	5%	1/6W
R25	1-249-417-11	CARBON MELF	1K	5%	1/5W
R26	1-249-417-11	CARBON MELF	1K	5%	1/5W
R27	1-249-397-11	CARBON MELF	22	5%	1/5W
R29	1-249-407-11	CARBON MELF	150	5%	1/5W
R30	1-249-438-11	CARBON	56K	5%	1/6W
R31	1-249-421-11	CARBON	2.2K	5%	1/6W
R32	1-247-887-00	CARBON	220K	5%	1/6W
R33	1-249-417-11	CARBON	1K	5%	1/6W
R34	1-249-441-11	CARBON	100K	5%	1/6W
R35	1-249-440-11	CARBON	82K	5%	1/6W
R36	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R37	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R38	1-249-435-11	CARBON	33K	5%	1/6W

ELECTRICAL PART

Ref.No.	Part No.	Description			
R39	1-249-441-11	CARBON	100K	5%	1/6W
R40	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R41	1-249-417-11	CARBON MELF	1K	5%	1/5W
R42	1-249-423-11	CARBON MELF	3.3K	5%	1/5W
R43	1-249-401-11	CARBON	47	5%	1/6W
R44	1-249-385-11	CARBON	2.2	5%	1/6W
R45	1-247-873-00	CARBON	56K	5%	1/6W
R46	1-215-483-00	CARBON	390K	5%	1/6W
R47	1-249-423-11	CARBON	3.3K	5%	1/6W
R48	1-249-419-11	CARBON MELF	1.5K	5%	1/5W
R49	1-249-411-11	CARBON	330	5%	1/6W
R101	1-249-001-00	CARBON MELF	1	5%	1/5W
R102	1-249-001-00	CARBON MELF	1	5%	1/5W
R103	1-249-402-11	CARBON MELF	56	5%	1/5W
R104	1-249-001-00	CARBON MELF	1	5%	1/5W
R105	1-249-439-11	CARBON MELF	68K	5%	1/5W
R106	1-249-433-11	CARBON MELF	22K	5%	1/5W
R107	1-249-414-11	CARBON MELF	560	5%	1/5W
R108	1-249-414-11	CARBON MELF	560	5%	1/5W
R109	1-249-420-11	CARBON MELF	1.8K	5%	1/5W
R110	1-249-439-11	CARBON MELF	68K	5%	1/5W
R111	1-249-441-11	CARBON MELF	100K	5%	1/5W
R112	1-249-001-00	CARBON MELF	1	5%	1/5W
R113	1-249-441-11	CARBON MELF	100K	5%	1/5W
R114	1-249-001-00	CARBON MELF	1	5%	1/5W
R115	1-249-441-11	CARBON MELF	100K	5%	1/5W
R116	1-249-441-11	CARBON MELF	100K	5%	1/5W
R117	1-249-001-00	CARBON MELF	1	5%	1/5W
R118	1-249-001-00	CARBON MELF	1	5%	1/5W
R119	1-249-001-00	CARBON MELF	1	5%	1/5W
R120	1-249-441-11	CARBON MELF	100K	5%	1/5W
R121	1-249-441-11	CARBON MELF	100K	5%	1/5W
R122	1-249-001-00	CARBON MELF	1	5%	1/5W
R123	1-249-001-00	CARBON MELF	1	5%	1/5W
R124	1-249-001-00	CARBON MELF	1	5%	1/5W

ELECTRICAL PART

Ref.No.	Part No.	Description
S1	1-554-979-11	SWITCH, SLIDE (SW BAND)
S2	1-554-123-00	SWITCH, SLIDE (TONE)
S101	1-554-978-11	SWITCH, KEY BOARD (OFF)
S102	1-554-978-11	SWITCH, KEY BOARD (FM)
S103	1-554-978-11	SWITCH, KEY BOARD (MW)
S104	1-554-978-11	SWITCH, KEY BOARD (SW)
S105	1-553-510-00	SWITCH, SLIDE (SAFETY)
SP	1-503-282-00	SPEAKER
T1	1-404-578-11	TRANSFORMER, IFT
T2	1-404-362-41	TRANSFORMER, IF
T3	1-404-362-41	TRANSFORMER, IF
T4	1-405-992-00	COIL, OSC
VR1	1-230-071-00	RES, VAR, CARBON 20K
X1	1-567-314-11	VIBRATOR, CRYSTAL
X2	1-567-315-11	VIBRATOR, CRYSTAL
X3	1-567-316-11	VIBRATOR, CRYSTAL
X4	1-567-317-11	VIBRATOR, CRYSTAL
X5	1-567-318-11	VIBRATOR, CRYSTAL
X6	1-567-319-11	VIBRATOR, CRYSTAL
X7	1-567-320-11	VIBRATOR, CRYSTAL

9-951-492-81

Sony Corporation
Audio Group

English
87H0403-2
Printed in Japan
© 1987. 7